

**POLYTECHNIC UNIVERSITY OF MILAN
DESIGN FACULTY
INTERIOR DESIGN**



POLITECNICO
MILANO 1863

**THE IMPORTANCE OF EMOTIONS FOR
SPACE**

the smell and emotional memory

the space and emotion

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A.A. 2013-2015

Abstract

People have rich emotions, especially when we are faced with the memory of the past, our emotions will be different. The past happiness, anger, sorrow, joy will affect our mood today. These memories will affect our now, the reason is that we have a very deep feeling for the former experience, it has formed the subjective characteristics of human cognitive environment and things —— emotion. Emotional help us remember. Our feelings are composed of sight, hearing, smell, touch and taste. Most of these sensory abilities (five senses) in the form of 3D to us. The more feeling rich, the emotion more profound, the memory will be lasting. When the five sensory abilities (five senses) again encountered a similar situation, our past emotions will be aroused, we will begin to recall the past. In these senses, smell is always highly important factors influencing the human emotional system. In fact, emotion and sense of smell is influence each other, this is because the sense of smell is to strengthen the memory in the human brain. We can use smell to understand people's emotions, also can use smell to satisfy people's emotions. In the design, different functions space design needs to have different mood emotion reflection. The designers can use the particularity of the sense of smell, the purpose is to better know the emotional needs of the people, and use the sense of smell makes the space can meet the needs of people in different environmental . Make the space design more humanized .

Keywords: smell, emotion, Kansei Engineering, design

Riassunto in italiano

Le persone provano ricche emozioni, specialmente quando ci troviamo di fronte alla memoria del passato, le nostre emozioni saranno differenti. I momenti felici, quelli tristi, la rabbia e la gioia vissuti in passato influenzano il nostro odierno stato d'animo. Tali ricordi influenzeranno il nostro presente, il motivo è che abbiamo una profonda sensibilità per l'esperienza del passato, e questa ha formato le caratteristiche soggettive dell' ambiente cognitivo umano e le emozioni. L'emozione ci aiuta a ricordare. Le nostre sensazioni sono composte da vista, udito, olfatto, tatto e gusto. La maggior parte di queste abilità sensoriali (cinque sensi) ci si presentano in forma tridimensionale. Più ricca è la sensazione, più profonda è l'emozione, la memoria sarà duratura. Quando le cinque capacità sensoriali (cinque sensi) si imbattono di nuovo in una situazione simile, le nostre emozioni passate saranno suscitate, inizieremo a richiamare alla memoria il passato. Fra questi sensi, l'olfatto è sempre un fattore molto importante che influenza fortemente il sistema emozionale umano. In realtà, l'emozione e il senso dell'olfatto si influenzano a vicenda, questo è perché l'olfatto rafforza la memoria nel cervello umano. Possiamo usare l'odore per comprendere le emozioni della gente, come anche per soddisfarle.

Nel design, la progettazione spaziale di diverse funzioni ha bisogno di avere diverse riflessioni emozionali. I progettisti possono utilizzare la specificità del senso dell'olfatto, lo scopo è quello di conoscere meglio i bisogni emotivi della gente, e utilizzare l'olfatto rende lo spazio in grado di soddisfare le esigenze delle persone in diversi ambienti. Rendere il design dello spazio più umanizzato.

Parole chiave: odore, emozione, Kansei Engineering, Design

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Chapter1

1.MODERN DESEI IS KANSEI

Contemporary design market environment need to meet the perceptual demand, designers need to find a way to understand the real needs of customers.

People choose products in modern life, The main reason is the actual demand, for example, we need a pencil to write, will go to the stationery shop, we need a dress, going to women's clothing store. In many of the same product, the choice of people is affected by another demand, want to stand out in the many similar products will meet the demand of sensibility. Many disciplines of scholars have studied about it. It takes its name from the earliest Japanese **カンセイ** (sensibility) , literal translation into Kansei Engineering .1993 Japan to research the possibility of Kansei Engineering development, the government's financial support and academic research, in the end, in 1996, Japan set up the "Japanese Kansei Engineering society". Actually American scholar Donald Norman has put forward a similar theory, he put forward three different dimensions. The three dimensions have new names (visceral, behavioral and reflective level) and partially new content. This in his book "emotional design" is detailed explained how to apply. In fact, The earliest, the designers to note the importance of it is not only in Japan, in earlier studies perceptual engineering institutions in Europe is human ergonomics laboratory at the university of Nottingham in the UK.Italy's fiat car company is keen to Kansei Engineering application research. There is a famous American ford motor company is using Kansei Engineering technology developed a new type of family cars.The research of this discipline has become the government's industrial projects in some countries, such as South Korea, the government decided in the 21st century will be make"Kansei Engineering technology" to be a comprehensive application to industry. South Korea's Samsung group already has a very deep emotional engineering research. In China, also have related research in recent years, in Xi 'an Jiao Tong university and Beijing university of science and technology have academic research.

In fact, the description of the perceptual technology can be summed up: through product influence the user's sensory (five senses) emotion, study summary. The purpose is to make the products better meet the needs of the pleasure and comfort of the user, so as to stimulate the use of consumer desire and the desire to buy. Since be engineering, is to find out products can stimulate consumer factors and forms of pleasure, and use the method of scientific summary and application.

Through Kansei Engineering practical application, people can feel the sense of belonging and identity, people can get the satisfaction of body and mind. Can say, now from the design of the Functionalism (form following function) into emotionalism (form following emotional). This requires a design products to meet the physiological needs of customers and to satisfy their psychological needs. Now the central theme of design researchers also from "technology as the center" into a "user as the center". People in science and technology with continuous innovation

whether it is steam, electricity or information. It needs to have a higher level. But consumers are not only consider the functions of technical capabilities, but also pursue satisfaction and pleasure personalization, diversification and psychological. This is the result of the operation of the market and the results of the design. Of course, how to clearly know the needs of the user is satisfied. The needs of users in most cases can't get the exact answer through simple language communication, at the same time, the strong demand stimulate the design needs to continuous innovation, now, the designer team and researchers began to find their way.

Perceptual (Kansei) affected by different individual need, through the five senses to get everyone's different reflect.

First of all, we have to understand the sense of belonging in the human emotional need is belong to what kind of human needs?

From the design point of view, the sense of belonging exists in every aspect, small to individual needs, to urban planning, must consider the psychological needs as far as possible. Such as urban design, the sense of belonging is an important link. It can improve the well-being of people in the city. Everyone is afraid of loneliness and lonely, the design of the city at this time is not satisfied with simple modelling and convenience. Simply square and landscape street does not improve, like MAD architects host architects Ma Yansong since the childhood grew up in the courtyard house of Beijing, the urban design point of view of traditional Chinese have very strong feelings. "Cities such as Beijing, Suzhou, designer is with a kind of faith to build a city, so they can build something been around a long time, influence for generations, the city has a soul. If you build cities without thinking, just with a very utilitarian purpose, to come out of the building of the city, there is no soul. There is no soul in the city, people are difficult to have a sense of belonging."

2.MASLOW'S THEORY OF HUMAN MOTIVATION

From the perspective of science, the behaviorist Maslow's theory of human motivation in 1943 mentioned in the paper, the basic requirements including Physiological needs, Safety needs, Love and belonging, Esteem and Self - actualization, etc. These need to constitute a hierarchical structure, there is a theory that meets the need of the former, under a need arises.

Is difficult in these demand even if everyone has the same hierarchy of needs, but because of everyone's education background, living habits and so on are different, the same demand there will be differences. How to know the needs of different people? Behavioral psychologists believe that 80% of our impression of others from the non-linguistic factors. That is to say, most of them are from the senses. That is why before you hire an employee, must want to see him.

3.SENSE OF SMELL BE EVOKED THE LANGUAGE OF EMOTION

Research of the senses is better to serve the design , serve the people. And among the five senses, sense of smell in the human brain's special task is emotional memory, also can say the sense of smell makes people have a very subjective feelings for the past experience of things and things. Those stored in the brain, once they awakened, those feelings will be restarted.sense of smell function very perceptual,for the modern design pursuit for Kansei engineering, the sense of smell must have a powerful ability to help designers to better close to people's feelings.And those especially need emotional comfort and help the crowd is especially suitable for use of sense of smell, maybe olfactory design to offer help.

Chapter2

1.FIVE SENSES

We have a lot of sense organs, eyes, nose, ears, mouth, skin and so on, they constitute our known as the five senses. The five kinds of feelings is visual, hearing, smell, touch and smell. For the same thing, we use different senses to feel, our views on this thing also can have great different. According to the study, the human body is the most profound sense perception of sight (37%), followed by the sense of smell (23%), hearing (20%), taste (15%), the last is the sense of touch. They work together to complete the experience, and influence each other. For example, saw the beautiful food, we should think it tastes very good, our appetite will tell us "it should be very delicious", we would like to try it. A not beautiful food, from the vision we will first ask yourself do you want to eat, or not be that big appetite. This is the sense of sight influences the sense of smell and taste, the same, the sense of smell will also have an effect on taste and touch, this shows, our senses are interactive, they formed our impressions of external things and feelings.

2.THE DESIGNR AND FIVE SENSES

Designers how to use the five senses influence people.They are like five lines affects people's inner feelings.How to use good, is the wisdom of the designer.

As we know, the five senses is a key factor for us to understand the world. They work together for our body, then feedback to the brain. The last part is the emotional memory and the reflection of behavior. In fact we more to stimulate the senses,it will be more sensitive, Our experience will be more profound.

There are a lot of designers in the design be good at using these combined to stimulate our feeling. Japanese designer, for example, Naoto Fukasawa, he is a interesting designers, from his fruit juice packaging design, we completed a set of unconscious behavior, (without thought). The appearance of the juice can be seen at a glance what kind of fruit. At the same time, the sense of touch of specially designed to simulate the different fruit texture, such as the kiwi, the surface of the packaging is hairy. This design, greatly improving the user of sensory stimulation, increased the purchase desire, at the same time, the increase of the sensory stimuli to make the whole process is interesting. Naoto Fukasawa said his design concept is the "without thought".

"Unconscious design" (Without Thought), also known as "intuitive design", is Naoto Fukasawa, for the first time put forward a design idea, namely: The unconscious action converted to the visible things.For example, the people who often eat rice know put some seasoning when cooking rice to make rice can achieve better taste. For example, put vinegar can cook the rice is more soft and tender, even though most people know that this common sense, but because there will be inadvertently forgot to add seasoning.When people cook rice has a unconscious action to automatically add seasoning , this design is called "unconscious design." The simplest explanation is to use simple behavioral habits replace you easily forget or separate complex behavior, and retains its good results.This is a kind of hint,our usual life habits also kept five senses of the stimulus, five senses under the stimulus of subconscious actions may be like a switch, when it is opened, users get the particular satisfaction. Ok, we can say Naoto Fukasawa is an intelligent designer, his clever with five senses achieved his aim, also to please the customers.

And for example, he designed the CD player, when we were children, we met the light,and naughty to pull a light switch, and this kind of behavior, as we grow up, It will still be a kind of hint,but when you pull,it is not the light but the music, than you go to the sitting room is much more interesting to press the black button. Of course, the most interesting is the CD on the player make rotation, like notes were flutter in the wind. This design is more like a synaesthesia design.

Five senses in the modern design is method ,also is the pursuit of goals.Can see some interesting design in the present life, I always mentioned "interesting", because "sensibility" (Kansei) need "emotional", people need emotional comfort.Interesting will necessarily promote people more deeply loves the life, let a person from the bottom of the heart are happy to participate in, and enjoy it.Such as the sound, from our birth and heard mother's lullaby to we

heard carol to the dead relatives. The sound ,we can use to communicate, when it is involved in the improvement of the life, Also becomes fun.

For example, a public facilities design to promotion public health . in metro stations always crowded with people waiting for the elevator, but few people will take the initiative to want to climb stairs, simple stairs is a good way to exercise, how to allow users to take the initiative to take the stairs instead of waiting for the elevator .In Stockholm, Sweden, Odenplan, Volkswagen uses the export of a metro station completed a design, they took a day at the exit to filmed a video, the content is people choose elevators and stairs.Then, the staff put sound by induction device on the stairs and decoration the pattern on the surface, to make it look more like the piano keys. The next day, early in the morning, with the coming of the first wave of people,The subway station there was a wonderful sound, very interesting, also very wonderful, the people heard more and more, and few people choose to go to the elevator and chose the stairs , when people up the stairs ,at the same time we can see from the inside of the camera ,they are a smile, like the children.Thus, a simple acoustic sensor design, people take the initiative to choose the healthier way and at the same time they enjoy it. And I think this keys stairs is corresponding to the people receive the feeling of sight,hearing and touch ,and enjoy this exciting experience of the short time, at the same time, the combined with the step on the interaction of the action, vision, hearing, touch each other the combination completed a perfect public facilities design.

In the same way, in Monterrey, Mexico, a group of young designers about Alejandra Farias ,Gabriela Mon Caola,Alejanda Garza and Sofia Mora team composed .They in order to solve the problem of a university student crossing the road made a device design. For school students need to across the road, the road vehicle, quickly, although there is a bridge, but most of the students choose to cross the road, or in order to facilitate this is quite dangerous. Design team used a sound interactive effect made a simple solution, they are on the deck of bridge was laid across the ribbon, with a sound induction, the when someone stepped on them, will send out the sound,and the sound is very childhood, the sound is like the little yellow duck in the bathtub , very interesting.This makes it impossible to resist , that the interaction of ribbons funny sound , the bridge soon became the way that students choose walked across the road.

There will be one of the most life design, the road traffic lights, in order to make people have more sense of time, these green lights will make a sound, and the rhythm will more and more rapid . This is also to consider for the blind. the sense of hearing instead of the sense of sight, the voice is like the shortness of time, it also makes the pedestrian emotional tension,the people like to hear the tick of the countdown time.

Actually sound with a wide range of properties, in the life have many voices are aesthetic, and the different material also can make the different sound.Like a gong, when it bell , the part of the gong soaking in the water, the sound is changed, of course it is one of the characteristics of sound propagation, the combination of these different can simulate many sound, like postsynchronization, the sound make combination and simulation a variety of scenarios and individual voice, such as the thunderstorm. Designers will certainly not pass this way to complete

the product they want. A set of graphic poster design accordingly. Saxso be hilarious Brazil branding campaign work, view their Interactive Posters that make a contributor when touched. The Noisy Interactive Posters. these posters printed with special material, through the Interactive behavior to make a sound like the content of posters, posters is not only a picture, also can listen to. For example the thunderstorm, material is thin metal, when we shaking it can hear the rumble of thunder.

Scientists have discovered that the human's brain is very developed, our perception is also amazing, 3D movie is most people pursue the visual enjoyment, we would like to see the image more realistic more enjoyable. And the perception of our eyes, ears, and two nostrils is like the 3D movies, through the left and right different ways accept different information completely will restore to the brain, brain automatically make the combination and reappear into a 3D virtual reality environment. About the left channel, right channel and 3D, I thought of a person, recently have a Singapore musicians JJ Lin. He will be 3D recording into the concept of traditional music, make when we listen to music, like in the various scenarios by his, listen to him sing as true, we like sitting beside him, and he singing with our ears. The principle is to use the technology of about 3D Dummy Head Recording, mastered the five senses, of course, can bring convenience to our life also can add fun. The purpose of the final is design to improve people's living standards and promote a positive attitude towards life.

If you are still not clear how the five senses magic, it how to represent the human emotions and responses, I give you an example. We depend on our eyes see a leaves, it is the basil, and accurately that we is to rely on the sense of smell to know its unique identifying information. It is very sweet, a special kind of taste and smell. But the smell of a lot of time, and if we see it, don't need to smell, we take a look at will know that it's called basil leaves. The reason is that when we know it for the first time, we have already put it in our memory Banks, including our understanding of it and emotions, and we like it or don't like it, the information has been retained in our memory. When we see it in the flowers once again, we don't need to smell and can recall its unique taste, this is why the five senses are our links with the outside world "interesting language". Accounted for 23% of human cognitive sense is the sense of smell, the smell like the sight, and we have no choice, as long as we breathe, the surrounding environment with the smell will send the information to our brain. Our sense of smell have the magic than we thought.

A Spanish design company "Lo Siento Studio", they hope to design a box that has the smell of bread. They are for the Spanish bakery founded by Xevi Remón make a branding and packaging work. Just show a little hole in the box, the people can smell it, and have the smell of the bread, and I want to buy it must keep on my way home to smell the smell of it, and eat it.

Smell can cooperate taste all kinds of taste, our sense of taste is not rich, we can only taste even acid, sweet, bitter, hot and salty. We can taste the taste of so many different because our sense of smell and taste stimulus with our senses. This is why a cold, food seem very bad. Seems to need to cooperate with other sensory taste is the best effect. Remember the Milan Design Week 2015, there was a food stylist from Japan, he designed a rain of food, really is the sense of taste, sense

of hearing is wonderful experience, he put the bubble sugar into small bottles, when people pour this a "rain" import, we can hear the tone of the candy, in the mouth this resonance is passed to the ear is like the voice of the rain fall on the ground. Really is out of memory. The sound of rain and rain fall to the ground scene be we remember, through the mouth in resonance imitates the sound of the similar to evoke memories of when it rains, we also put this sweet feeling for memory.

Said again, the sense of touch. Almost all our body touch on the skin, we can feel cold, hot, hard, soft, smooth, rough, etc. Our skin is encountered also can produce different response to different stimuli, such as cold when we will get goose bumps, will get very hot, hot red. We're almost through touch to confirm everything, we only see, or only listen to, is not enough. Even when we taste the delicious food is directly confirmed by mouth and mouth touch it. Touch for a specific population has irreplaceable effect, such as the blind man, they could not see, but hearing and touch are quite sensitive, the sense of touch became their understanding of the direct method and reading, if we can observe carefully, when the blind pour water in the cup, they will usually with another hand along the glass with the index finger into the cup, so that when the water met the fingers can know how many water in the cup, was the most should stop.

Here I introduce a Russian student designer Stas Neretin, he designed a set of Intimate Care Products Package Concept, product name is "NAKED", it is one of the works of Pentaward gold medal, the packaging design has a soft curve, similar to human NAKED body, the skin color and luster give a person a kind of illusion, this is a special kind of sensual pleasure. Is commonly used in shape, it abandoned the bottles design streamlined, ups and downs, irregular bottle looks individual character is dye-in-the-wood. It is interesting to note that when you touch Naked, it will give you feedback, like a living creature be touch area will blush on gently, and tender skin suffered minor injuries, like neretin said: "please to packing a little tender, it's really shy." Stylist is used to heat change color coating, the temperature of the hand directly contributed to the coating to shift from skin color to red. Through this interaction between people and products, product designers cleverly hints mild without stimulation, and also have increased interest in the product.

The touch has a lot of form, some interactive action also is pretty good tactile experience, such as Germany Kalle Rebbe advertising company thought of a clever marketing, they put the cheese into the individual pencils, deserve to go up again a dedicated "pencil sharpener". Cheese is made from oversized pencils, a pencil on the scale and the label on the outer packing is not only with each dish need to cut off many pencils, even write how many calories cut down leads. And pencil lead is produced by garlic, chili, truffle, on behalf of the three flavors of cheese, cutting good cheese can be sprinkled on the dish, convenient to use and fun.

Pretty, or not pretty, very direct visual expression of his own opinion. Some of the carefree feeling on the vision or close guidance can bring the user different mood, can make people imagine that a lot of different good pictures, use this visual element in the design is very wonderful. Such as the pharmaceutical packaging: Donut pills, sweet visual response, not think to take medicine is a melancholy thing. Sugar, and the other a whistle really try to get the one to eat, because the

characters on the packaging design is really like to eat many will ease. These five senses provide us the design inspiration of endless.



3.THE SENSE OF THE SMELL IS THE SWITCH OF EMOTIONAL

The sense of smell is the switch of emotional memory

We already know the emotion demand is of critical significance for the contemporary design industry, it is more like a leading contemporary designer constantly innovation quality of life of a navigation. Designers are no longer considered just "good", but how to make the user feel "the good things is really interesting!" Exploration of five senses is only active in the scientific community in the past, and now, the designers from all walks of life also opened their sense organs, hope that through real emotional experience more valuable experience to meet and break through the inner demand of users.

Sight, smell, hearing, taste, touch, these secret "tentacles" perfected the brain to the outside world understanding and reaction. If make a metaphor, I think, the brain is more like a database, through our five senses cognitive to every outside information stored in the brain, and when to meet again active reflection we had knowledge of it, and record the updated information in the brain, and with the addition and subtraction of the amount of information and the degree of repeated stimulation and originally recorded on the strength of the different sensory approach can produce interesting "forget" phenomenon, with the five senses and the brain makes us to have a personal response, but these reactions happen to is the designer's collection of "user experience".

In one of five senses interesting human senses, it depends on the nose to complete the acquisition of information, but can form a perfect emotional memories in our memory, it is another kind of emotional memory way of brain, unlike the hippocampus, he is on the sense of smell to complete nerve reflex, the last of the information is not stored in the hippocampus, its presence can be said, is to record the emotion. German scientists have found that in addition to the hippocampus and memory function in the human brain has a direct correlation, and a control of olfactory function is also closely associated with memory. This finding further reveals the physiological mechanism of human brain memory, can well explain the function of human brain memory, feeling under stimulus, such as the strengthening of the vision. Some epilepsy patients undergoing brain lesions memory impaired symptoms after surgery, it was found that the brain in addition to the hippocampus zone, another piece of the so-called "smell" the brain is also involved in the process of memory.

The smell in the brain is converted into memory? First of all, the odor molecules into the nose and olfactory neurons, after thousands of olfactory neurons and olfactory bulb, through the olfactory nerve bundle ready to enter the brain. These olfactory information through the two pathways are brain processes, these two pathways after brain route explains why the sense of smell and memory.

As shown in figure, the first major route: primary olfactory cortex- hypothalamus-the prefrontal cortex. Primary olfactory cortex include the amygdala, piriform cortex, parahippocampal gyrus. The amygdala and parahippocampal gyrus were mainly responsible for emotion and memory

functions. The second route: secondary olfactory cortex - olfactory cortex and hippocampus, the two parts is also responsible for memory function. According to the olfactory pathway, because the sense of smell after a lot of memory processing areas of the brain, so whenever smell, memory processing part of the brain are activated and evokes memories of the taste. Author of *In Search of Lost Time*, Marcel Proust believed that olfactory memory more of the emotions, and it is not only the past record of truth. America's Brown University psychologist Rachel Herz made such an experiment, she provided the subjects with three clues - images, sounds and smells, and then ask them to recall the past. Experiments show that the smell caused by recall more emotional, but not more vivid and bright.

This scientific conclusion is very interesting, the reason is that the sense of smell can't see and touch, can represent a kind of emotion in our memory, if this explanation is still not enough to understand, we can imagine when we inadvertently smell just mowed grass, most people will think of the nature, instead of grass itself. And spring most our mind is full of sunshine, the early morning, or some people think that the picnic, it's certainly not for the picnic is the smell of grass, but because of who I am at the picnic there or stay in your memory of the emotional part is with grass flavor, this is just a taste, but is a kind of taste, it makes you aroused a for picnic, personal emotions and emotional memory of spring, you may miss an unforgettable picnic in a spring.

Have to say that the sense of smell of imagination is very rich, when we smell the charming perfume, we will go to find the source, of course we will use the eyes to find the source, we will use around eyes search a cute lady, the reason is very simple, because our sense of smell is receiving the message "a lady", if, lovely lady just right we see the face, we looked at her and subconsciously use olfactory recognition if she sprayed the fragrance, but our hearts will almost certainly should be her. This experience tells us that sweet taste with a sweet lady, the emotion of subjective thought is the result of our past memory in the heart of emotion regulation.

Smell, really amazing, it is very subjective to judge, he is not limited by what shape even touch, as long as there is, even a little bit can arouse people's mood and emotional change, for example, the nature of the stinky flower *Amorophallus titanum*, its appearance is beautiful, but you will not like it, because she is beautiful because of smell warn you, it's too smelly. Again, for example, someone put a fart, if there is no voice, people no matter like it or not the taste, instant emotions, thoughts and feelings and even language and eye contact will be keen to react, and we will say the sense of smell is the most among five senses is not easy to lie, don't we can eat delicious food, don't look good things will also be able to endure, it feels uncomfortable or even habit, we would choose to hear bad music cover ears, but the sense of smell, as long as you are breathing, smell will stick take in your nostrils, some sensitive people even for perfume is the phenomenon of vomiting, the sensory response very personal, even absolutely personal. We can assume that, if the sense of smell is the difference between each of the emotional reaction way of the most sensitive, so designers can use it, in the service of a particular people or the environment? I, for example, such as recording studio. Singer when preparing the recording will be brewing in such space feeling, familiar with a particular emotional atmosphere, it all depends on the singer himself in the brain to complete, and there are a lot of can't find the feeling, so an emotional song

need time to complete. The studio environment is such, to the effect of sound, as shown in figure. I want to in such an environment can incubate affection singer emotion is very rich, because such an environment, really not too easy to hook up too rich emotional memory. We imagine that if the advantage of the characteristics of the sense of smell, we make some taste in concave and convex on metope, can also be in the light, even simple ventilation or directly on the microphone, he does not affect vision, also won't exist form, even you don't need to do some special action, you only need to breathe, breathe naturally, some singers recording for a recall or feeling will do some strange action or with a strange thing, why not let our studio to be a switch of the emotion?

Chapter3

1.A BOLD ATTEMPT ABOUT THE SMELL&THE CONCEPT IS “THE SMELL SPACE”

A bold attempt about the smell , the concept is "the smell space".

We initially understanding of Kansei Engineering, design based on human emotion as the starting point, and the emotion is very complex. Emotion is the attitude of this part of the whole, it with the attitude of introverted feeling, intention to have consistency, is a kind of complicated attitude on the physiological and stable physiological evaluation and experience. Emotion includes two aspects of moral sense and sense of worth, embodied in the love, happiness, hatred, disgust, beauty and so on. Big dictionary of psychology, said: "emotional is whether objective things meet your own needs and the attitude experience". General general psychology course also said: "the mood and emotion is one of objective things attitude held by the experience, just emotions tend to individual desire basic demands on the attitude of the experience, to tend to the needs of society desire and emotion attitude experience". This is a video about the definition of emotion. Designers need to learn how to capture people's emotional feedback in daily life, but also to design feedback back to human's daily life, make people not only know from life for a better way of life to let people know how realize the value of life itself, let people know how to remember and cherish the life intravenous drip and wisdom.

I made a bold attempt, in the hope that through this design concept can be infected people to cherish and gratitude those precious memories of life they pleased, nu, smiling, painful life is like a movie, from birth, to our old, and the unknown future, no matter, we are standing at which moment in the life journey, we all thank once spent years can be emotional, cherish life, grateful life.

My attempt of this design is a exhibition design, includes the theme of the exhibition, content, and the design of the exhibition hall. I gave in the design concept of a topic, a common thread and a combination. Let the theme exhibition according to the clue to achieve. Smell my exhibition theme is: space, I want to present in this exhibition are different smells, these smells represent different things in life and experience, the typical example has a strong emotional color. May be a kind of taste is an old bike, but it may be your vehicle used by the whole family. May the taste of a taste is a lipstick, but that may be your first date. The smell from the moment of life ever. What happened something profound emotional memory, even the things. Have a common thread at the same time, it is a clue that is order, and the smell of the exhibition hall is from birth to old to change order of time sequence.

I choose the smell is because through the analysis of related scientific resources and design a product I feel the sense of smell as everyone sensitive emotion "tentacles" can give designers a wealth of information, inspiration. At the same time, it also can be used as a feedback to people the gift of life, the emotional gifts may inspire people, soothe people's hearts, from the spiritual and emotional supplies design hope that gives a person the sense of belonging and bring spiritual satisfaction.

2 CHOOSE THE SMELL

Research on smell, there are a lot of scholars and researchers engaged in smell, they for tens of thousands of taste has their own way to collect and research purposes, these researchers, there are some people also smell artists and flavouring. For example, Jean Claude Ellena, ArmandPetitjean and Olivier Polge, in 1988, he works in a international company (IFF) of spices & essential, for more than one brand of top class products research and development after several big success in the global scope of famous perfume, and flavouring genius Serge Lutens.

The smell of some interesting artist. France, for example, the famous artist smell (KAISER (CHARM KAISER), he began to study in 1925 and collect all kinds of smell in the nature, development and the life, with all my heart all smell, for example, mud, snow, handmade chocolate is bitter coffee, including the human body odor and smell of the city, and so on. The smell of the persistent artists dedicated his life to the study of odour, 1936 formally established the smell museum (CHARM KAISER), CHARM KAISER perfume officially on sale in France in 1938.

Sissel Tolaas is a contemporary Norwegian installation artist most widely known for her work with odours. During the 1990s, her work began to focus exclusively on odours. She maintains a "smell archive" in over 7000 airtight jars.

«Rushton, Susie (August 27, 2006). "The Sweat Hog". The New York Times.»

In 2004, the ReSearch Lab was founded as part of Tolaas' studio. Situated in Berlin, the lab supports interdisciplinary projects and research involving smell, odour, and fragrance. Supported by International Flavours and Fragrances (IFF), the lab establishes communication between experts in different fields dealing with olfaction.

«"Sissel Tolaas; An alphabet for the nose". Retrieved 2015-03-07.»

Some international flavors company also provides the scientific research and a lot of technical services, such as, the IFF, Swiss Givaudan Swiss Givaudan co., LTD. , of course, most of their research into production, also provided to the taste of our daily life.

My design concept to smell as the main body, and the smell of collection can be completed by the smell of the professional researchers and institutions. Such as a diary with smell the smell of the artist Sissel Tolaas, and IFF flavouring.

But the details in life, things, too much food, from birth to death, time is can't use "time" outside of the noun. So, I had three rounds of the selection work, first of all, I and some people to discuss and lists many we remember and forget things and things, and even feel, such as riding a bicycle for the first time, dad's shoes, the key to the new home, a person cry, embarrassed. Then I will these examples as 100. In a second round of screening, in the second round of screening, will choose the option to have the same feelings, finally only one, in this process, I will ask the people around you including my parents, my friends, even internship colleagues of the company. In the

final round of screening, I will to complete this part, the reason is that I need the series into a lifeline, the smell of the different subject in different phase of my life, I would to quantity balance in order to keep the visitors will be able to in every stage of the display can be fully realized each topic. The last remaining only 43 kinds of topics.

THE IMPORTANCE OF EMOTIONS FOR SPACE
THE SMELL AND EMOTIONAL MEMORY
THE SPACE AND EMOTION

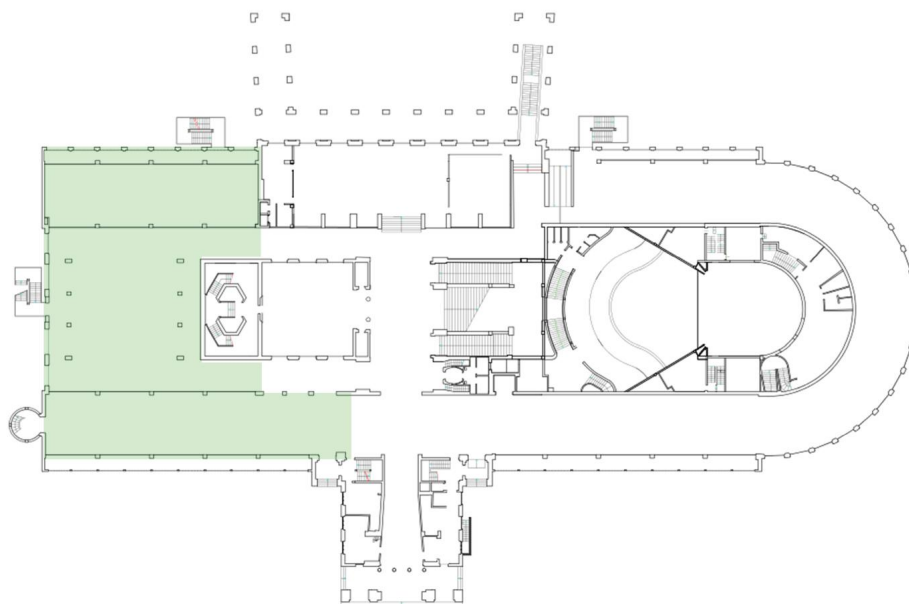
the 43 smells

toy	sleeplessness
parents	friends
the first gift	lonely
classmates	neighbor
the first teacher	one important e-mail/tele-
blame	phono
birthday celebrations	the fierce competition
the first love	family
quarrel	retired
dream	help
injustice	abandon
travel	regret
trust	collection
sick	miss
graduation	death
the interview	grandson
embarrassed	
rent a house	
the test	
own	
work	
pressure	
get married	
successful	
the first child	



CHAPTER 4

1.CONCEPT



The location of the exhibition:

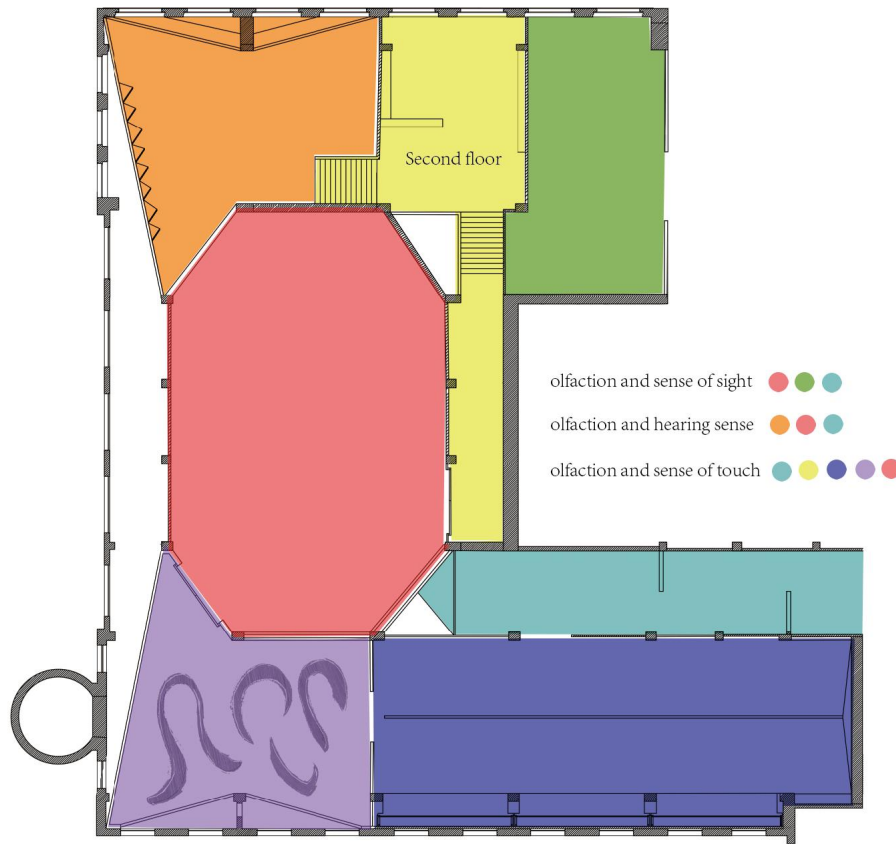
La Triennale di Milano (Viale Alemagna 6, 20121, Milan, Italy)

It on the ground floor, and near the entrance , the first exhibition hall of the left.

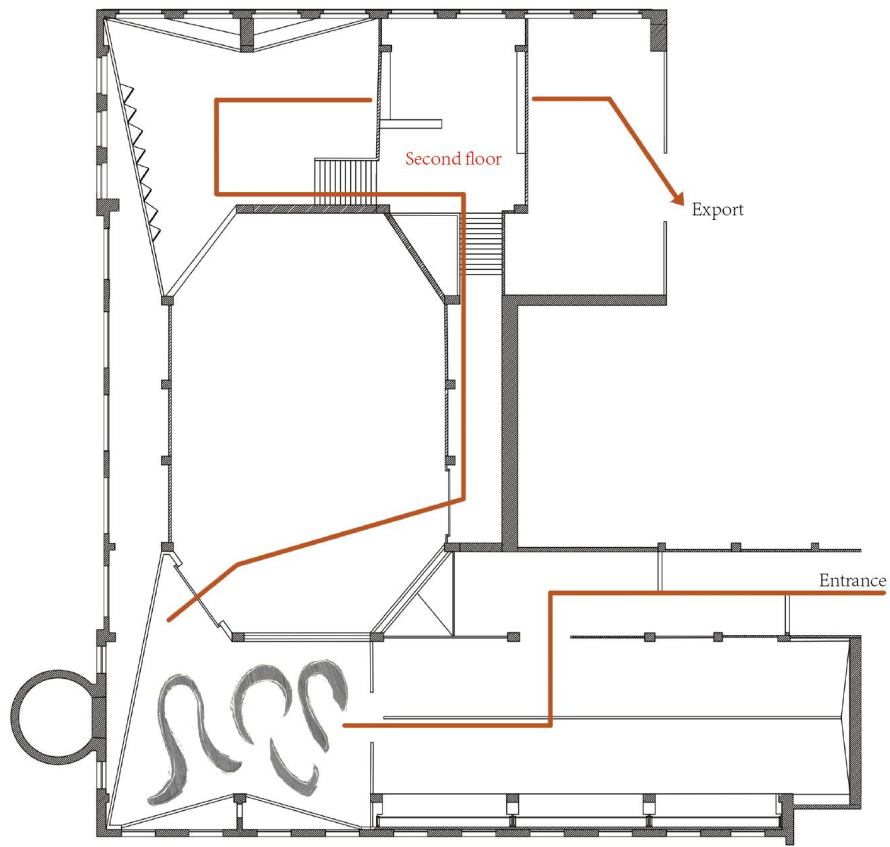
DESIGN CONCEPT

- 43 in the smell of life in different space respectively, from birth to death.
- At the time of the exhibition, people can smell different.
- Exhibition, a total of seven space, different space have different forms of display.
- According to the principle of the five senses, the different spaces using three kinds of combination of the five senses in the space. Different collocation can have different effects. When people experience, also had a different smell the memory and experience.
- three kinds of combination of the five senses:
 - olfaction and sense of touch
 - olfaction and hearing sense
 - olfaction and sense of sight

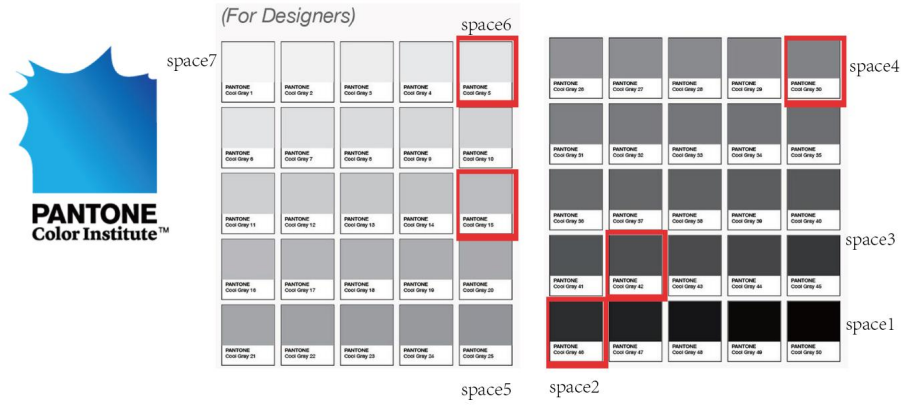
Functional area analysis diagram



Path analysis diagram

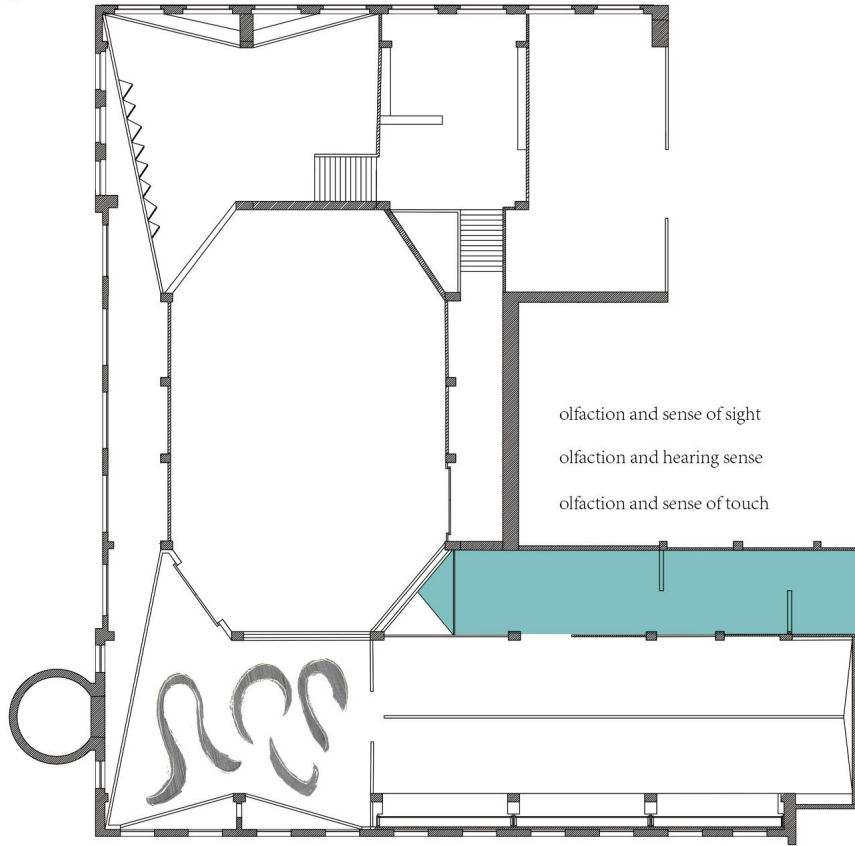


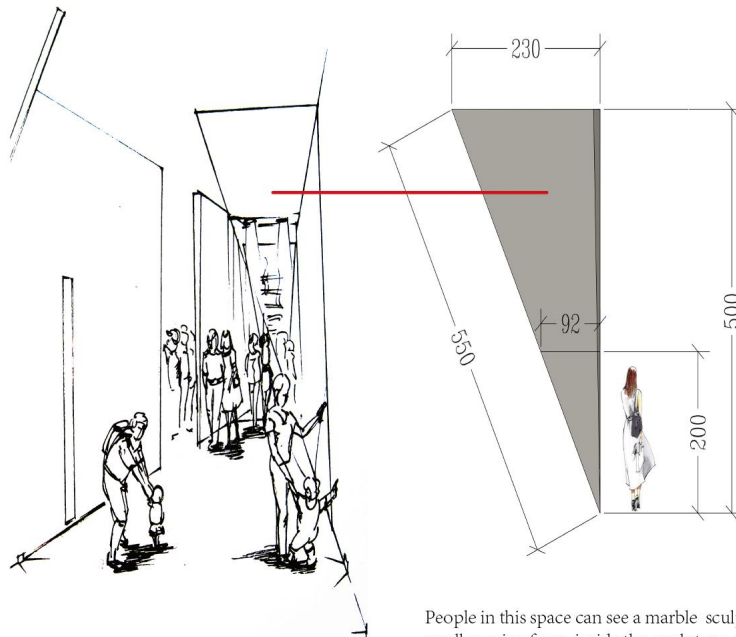
color of the space



Reason is that the space order is from birth to death , was a little girl on the memory of the world is not much, what also don't know, we know that we are old, memories we make our world a bright, so the color from black to white.

space1





People in this space can see a marble sculpture of the theme, the smell coming from inside the sculpture, people also can smell the surface of the wall, there will be a different smell. Wall and ground have 10 cm's point of view, people don't need to touch the wall, with his nose can smell the smell of the walls. The theme sculpture have the words, hollow out on the surface, there is the smell coming, to prevent the smell mixture, there is a glass block.



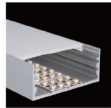


The light

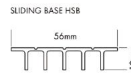
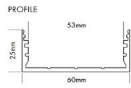
Because space is dark ,the ceiling is not illuminated.

on the wall

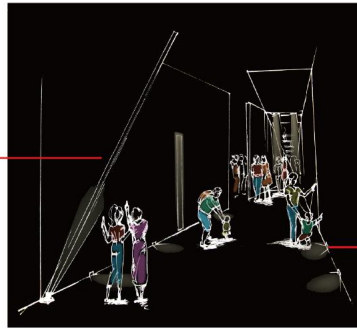
PROLED®
MBN LED®



Aluminium Profile L-Line Low



<http://ft.proled.com/en/products/product/proled-profiles-41/aluminium-profile-l-line-low-794/>



on the ground

iC
ICONE



light color **LED Alluminio**

Art.	W	V	LUMEN	*K LED	A cm
12	10	220	700	3000	8,9

PROLED®

MBN LED®



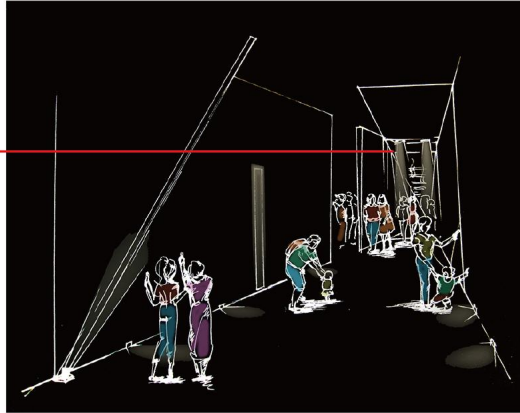
Tracklight 40 / Tracklight 40 Premium

TECHNICAL DATA

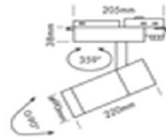
IP classification:	IP20
Power source:	100-240 VAC 50/60 Hz
Housing:	powder coated aluminium white
Driver:	including
Electrical connection:	3-Phase power track
Operating temperature range:	-10° C till +45° C
Dimmable:	no

PHOTOMETRIC DATA

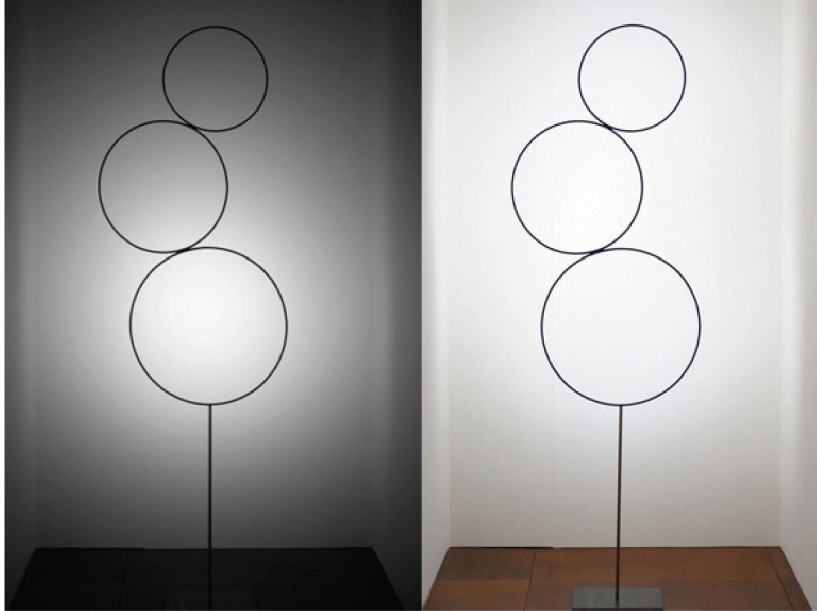
LED type:	LUMINUS
Luminous flux:	TRACKLIGHT 40: neutral white 3100 Lumen warm white 2800 Lumen
	TRACKLIGHT 40 PREMIUM: neutral white 2800 Lumen warm white 2500 Lumen



Colour temperature:	neutral white 4000 K warm white 3000 K
CRI:	TRACKLIGHT 40: 80 TRACKLIGHT 40 PREMIUM: 90
Beam angle:	18°, 25° and 35°



Catellani & Smith®

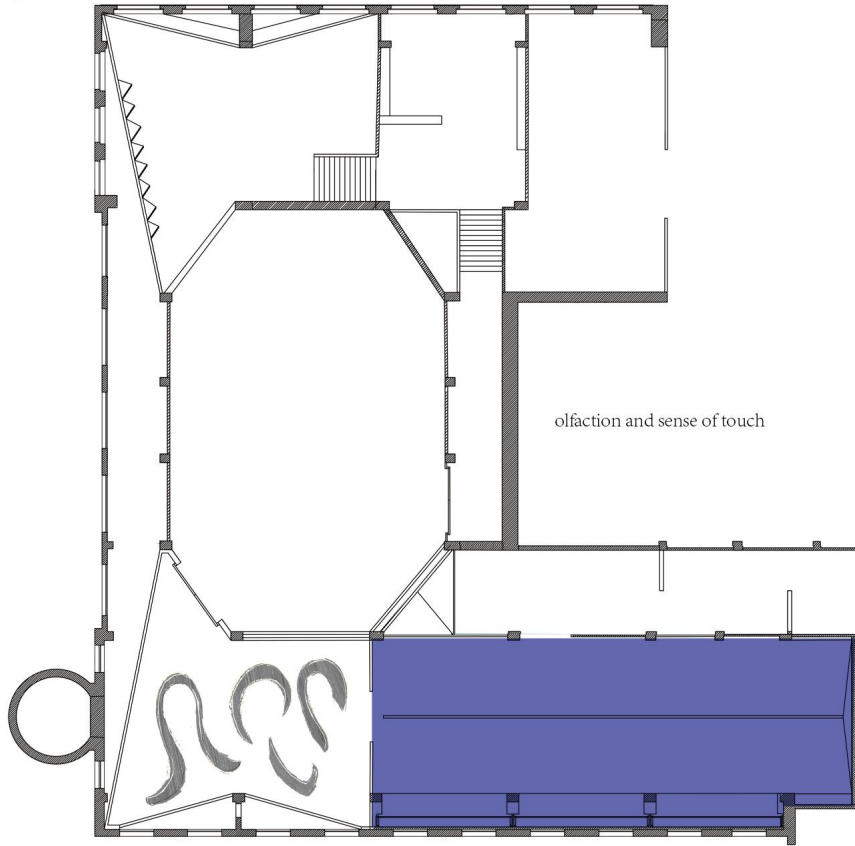


the brand for the sculpture of marbles

citco / florim

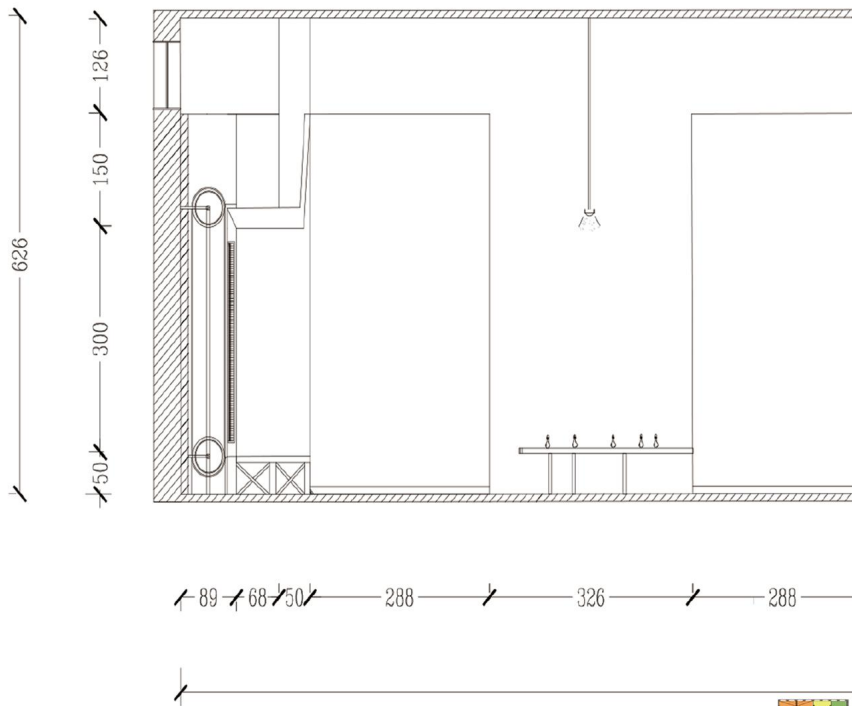


space2





In this space people can on a ledge three short rest or chat, the inside of the wall can be change the smell, people touch the wall with his nose can smell different. On the other wall have the small lights to explain the meaning of the smell on the wall, in this space, there is a big droplight, the ground has a narrow mirror, lights and mirrors in the dark space may be becomg a key to cut the different space, the light in the space form a curtain.



space2 devices detail

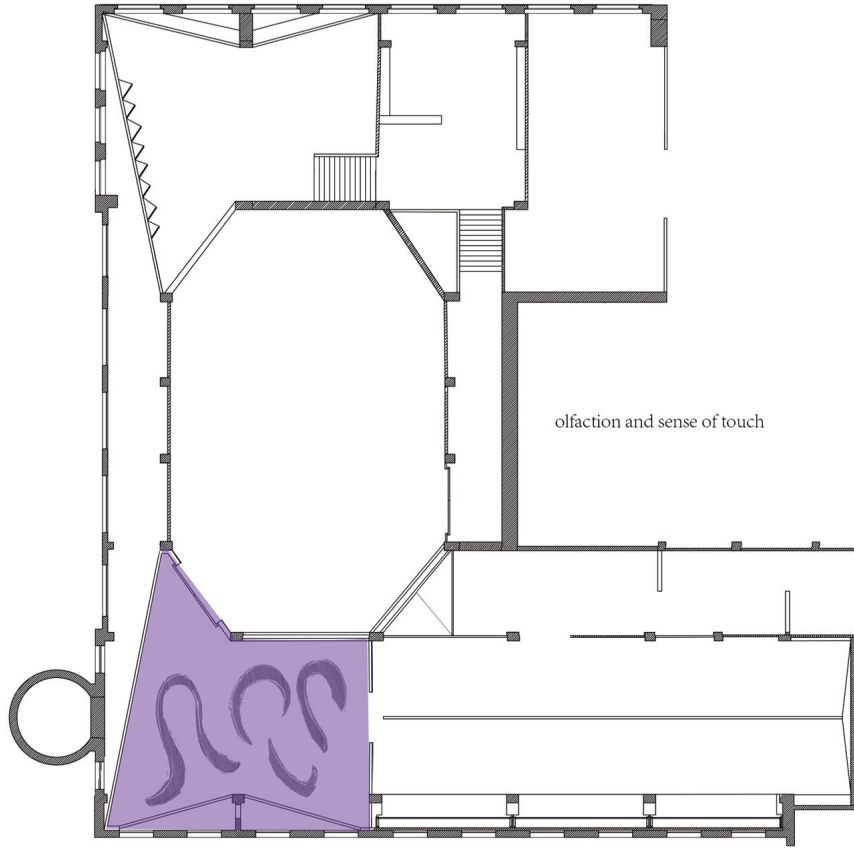




viabizzuno

Viabizzuno

space3

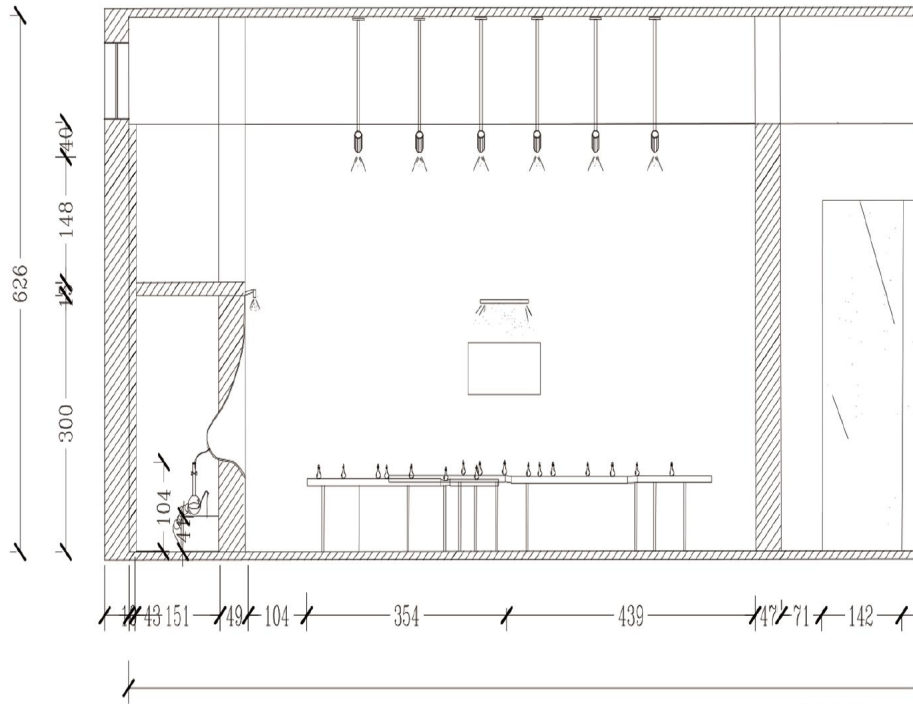


“dimples”

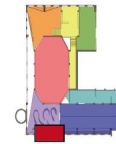


In this space , there are many bottles, filled with the smell of liquid, some of these smells the same, some differen, the reason is that this space is the theme of the youth, many problems like the smell of the bottle, choose different but the result. On t he wall, there are two device, shaped like two “dimples” , or the “navel” , they will release the different smells.

And the device technology uses the smell of the museum’s design principle.



space3 devices detail



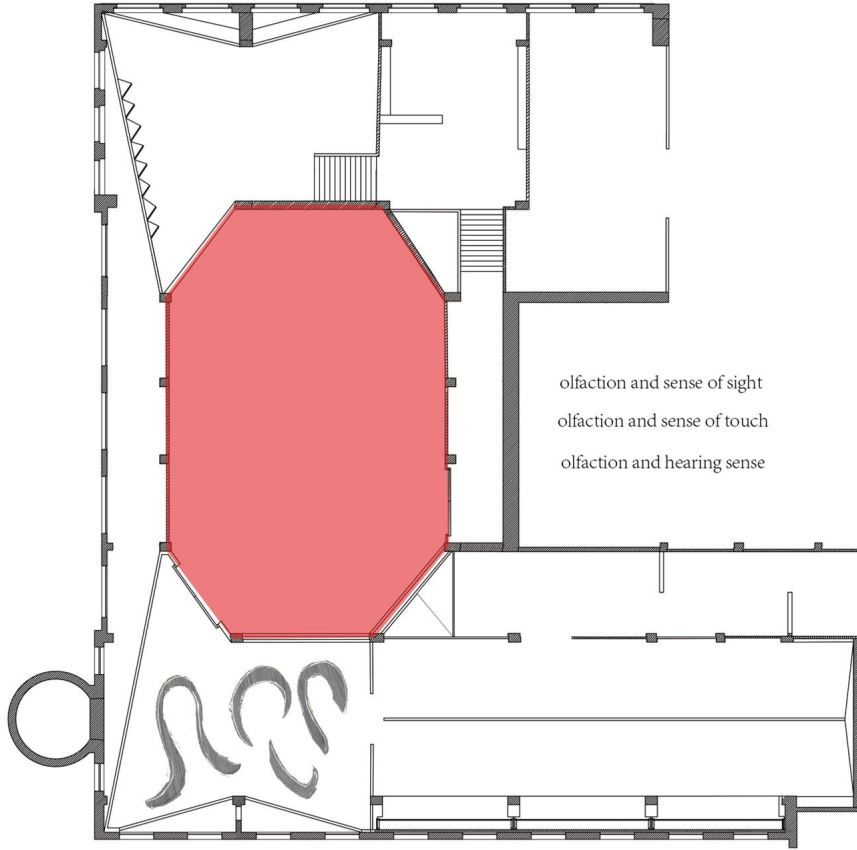


Art.	W	V	lumen	% led	A cm	B cm	C cm	D cm	E cm	
CRUZZORITE 50M	4,90	12	440	3000	8	50	8	4,5	12	Trasformatore incorporato/Built in transformer
CRUZZORITE 70M	7,95	12	600	3000	8	70	8	4,5	13	Trasformatore incorporato/Built in transformer
CRUZZORITE 90M	10,50	12	980	3000	8	90	8	4,5	13	Trasformatore separato/compresso/Remote transformer including
CRUZZORITE 110M	13,20	12	1100	3000	8	110	8	4,5	13	Trasformatore separato/compresso/Remote transformer including

ICONE Alimentatori a pag. 30/Power supply units on page 30
 Classificazione energetica: Energy class

Materie plastiche: PVC, ABS

space4





This space is the topic of "the birth of the first child". In the space of all the material is cotton, is gray carpet on the ground, surrounded by showing video and the voice of the child, and mother's lullaby. Have different smell in the air, people can relax in this space, at the same time thinking about our problems in life, in this space, all worries in life can replace with new life, because life is wonderful.

the texture



The carpet of the fourth space .

brand :
nube
biba
moroso
meco



The furniture of the fourth space .

Quantity: 30-35

Proiettori Hitachi CP-X2541WN



Dimensioni

Product Height: 8,5 cm

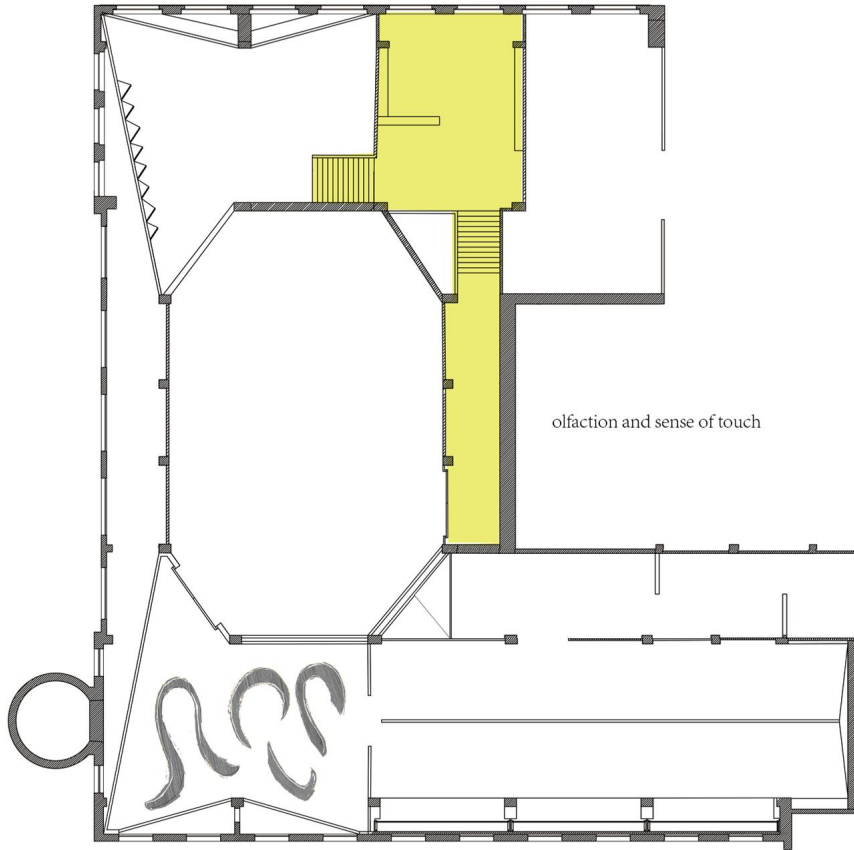
Largezza del prodotto: 32 cm

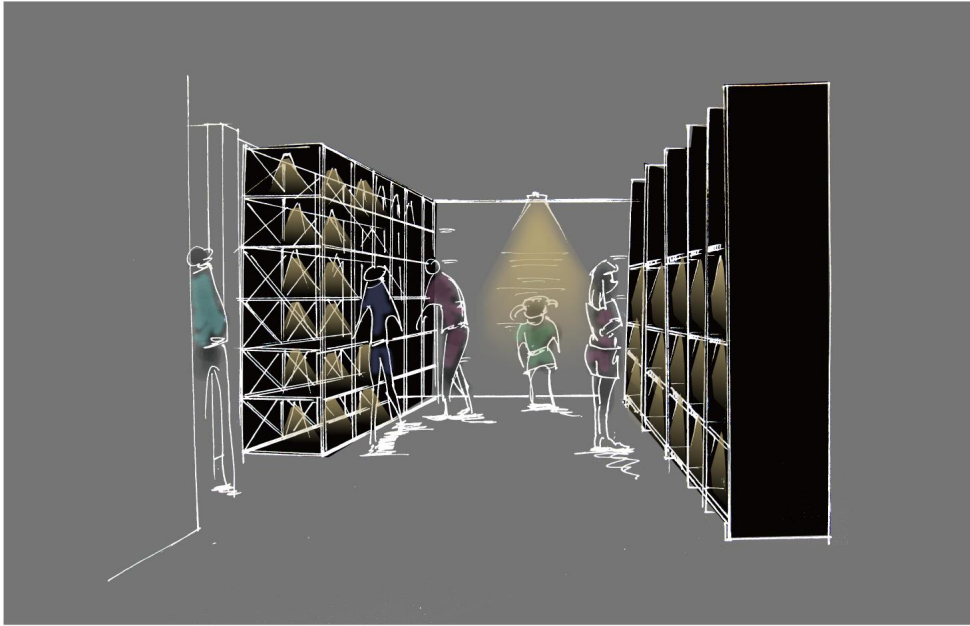
Product Depth: 24,5 cm



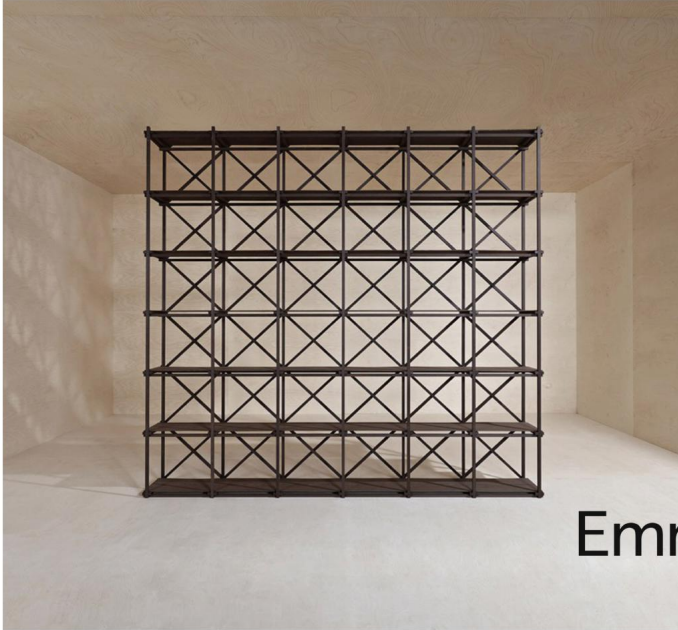
The projector of the fourth space, a total of four projectors.

space5





This is a two layers of space, in this space there are a lot of boxes with different "smell". They are solid, in this space, people can touch their leave the smell on the hand, this space is the theme of the middle age, at the same time, we have more ability to rein in life, we may see higher and further, we can see in the next room on the second floor, like, this time we can look forward to their own age.



Emmemobili

The furniture of the fifth space .

Height: 200 cm

Length: 220 cm

The grid size: 45 cm * 45 cm * 45 cm

Quantity: 2

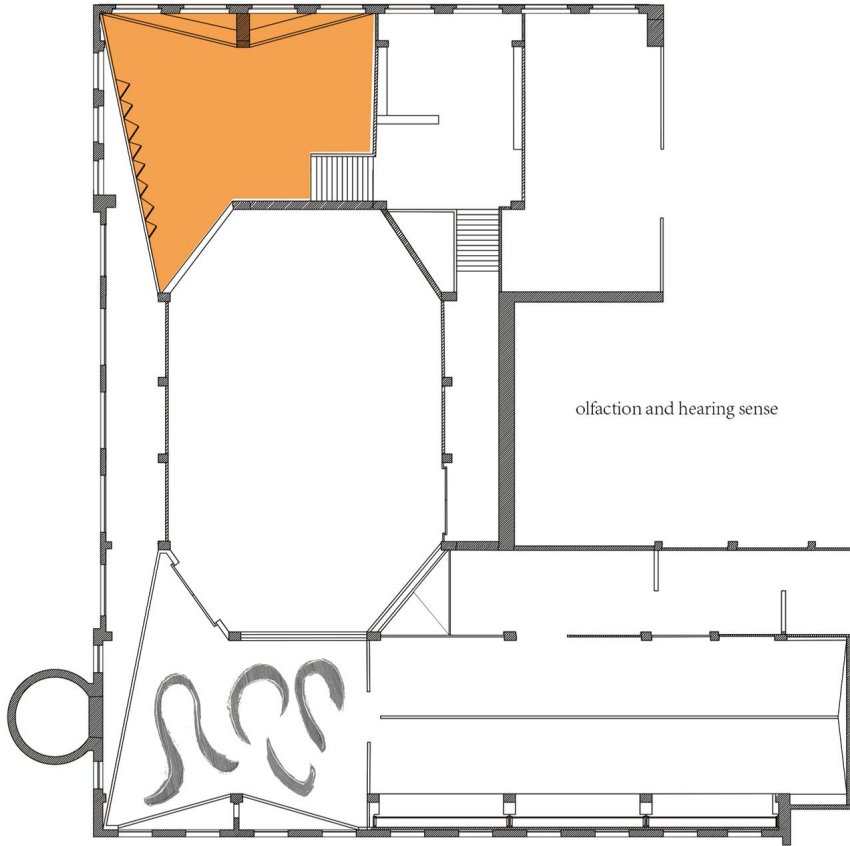


Art.	W	V	lumen	% led	A cm	B cm	C cm	D cm	E cm	
CRUZZORITE 50M	4,90	12	440	3000	8	50	8	4,5	12	Trasformatore incorporato/Built-in transformer
CRUZZORITE 70M	7,95	12	600	3000	8	70	8	4,5	13	Trasformatore incorporato/Built-in transformer
CRUZZORITE 90M	10,50	12	980	3000	8	90	8	4,5	13	Trasformatore separato/compresso/Remote transformer including
CRUZZORITE 110M	13,20	12	1100	3000	8	110	8	4,5	13	Trasformatore separato/compresso/Remote transformer including

CE Alimentatori a pag. 30/Power supply units on page 30
 Classificazione energetica: Energy class

Materie plastiche
 Materiali: Pvc, alluminio

space6



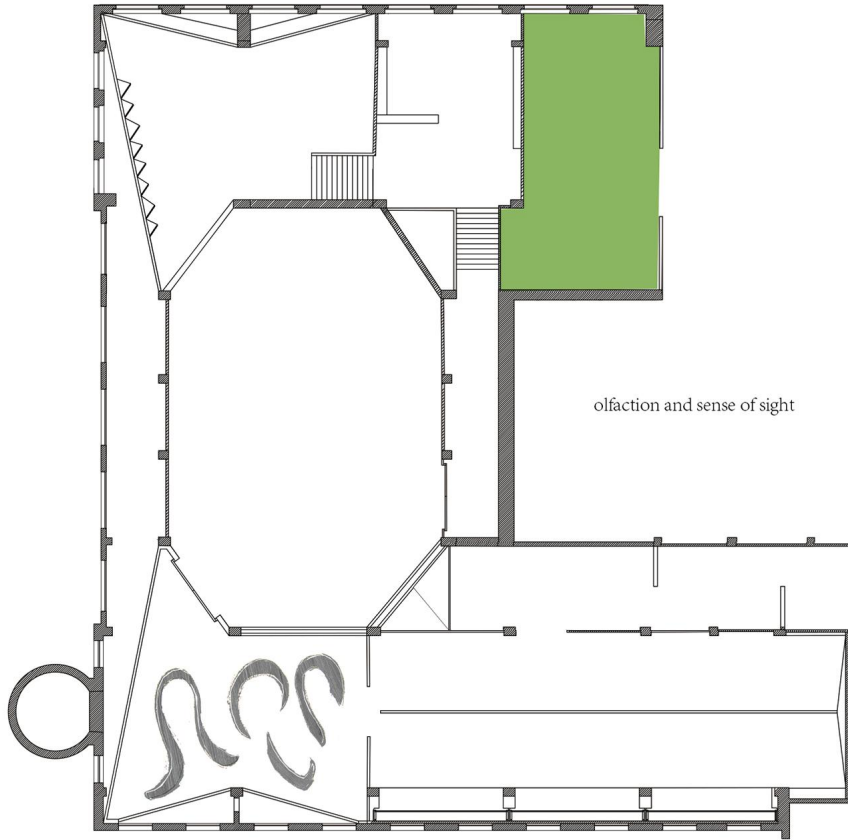


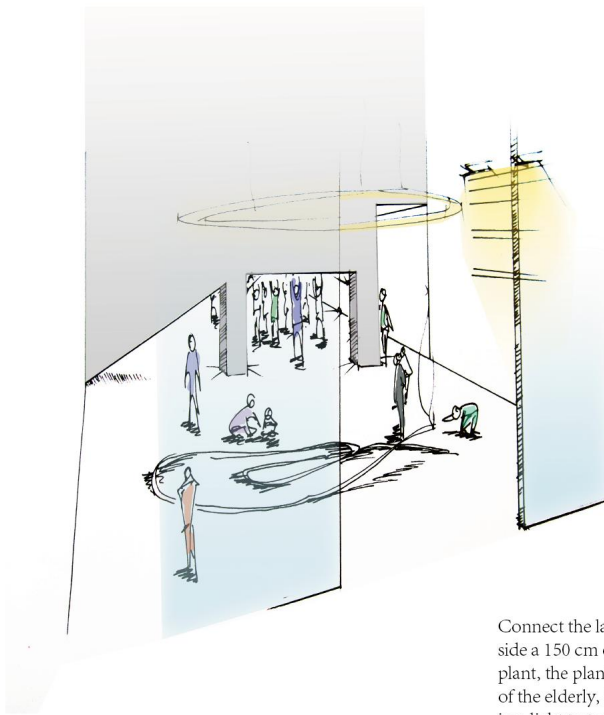
Walls in this space will hang a few bottles, they will release different taste, in the exhibition hall, there is a strong, acoustic sensor, it is people touch the sentence on the wall, the machine makes a noise, release and have a taste, this space is the space of hearing and smell, in this space, we can listen to stories, they are all our memories, is meeting with flavor.

voice-activated spray



space7





the incense

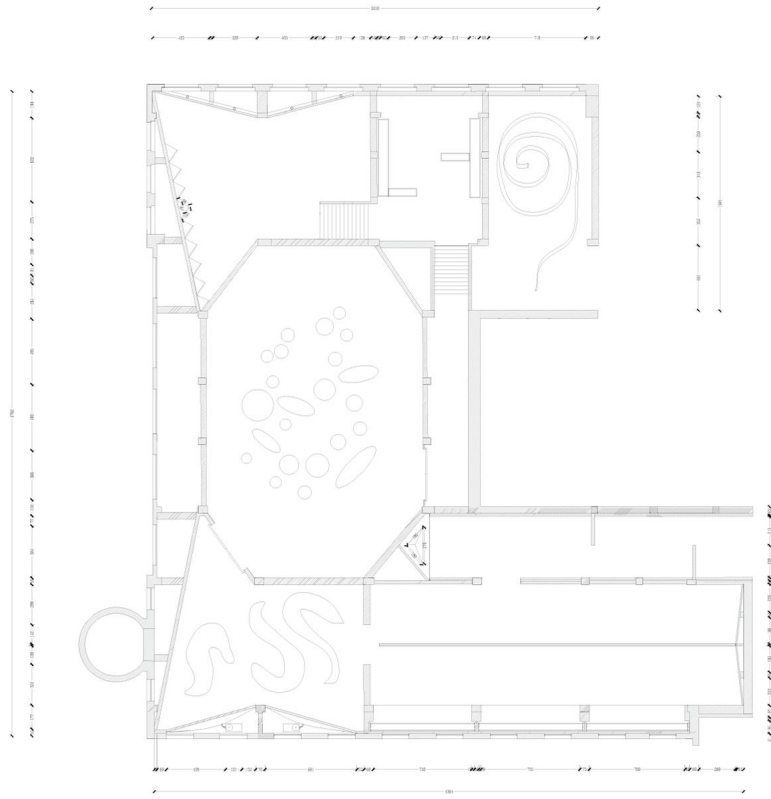
Connect the last space corridor ceiling height of 190 cm, alongside a 150 cm of the channel, is for children, people can touch it plant, the plant only touch the smell. The last space is the theme of the elderly, in this space there is a incense, it has been burning, light taste isn't there a name people couldn't guess the answer, the space is white and bright, but the end of the future, like the taste, no one knows the answer.



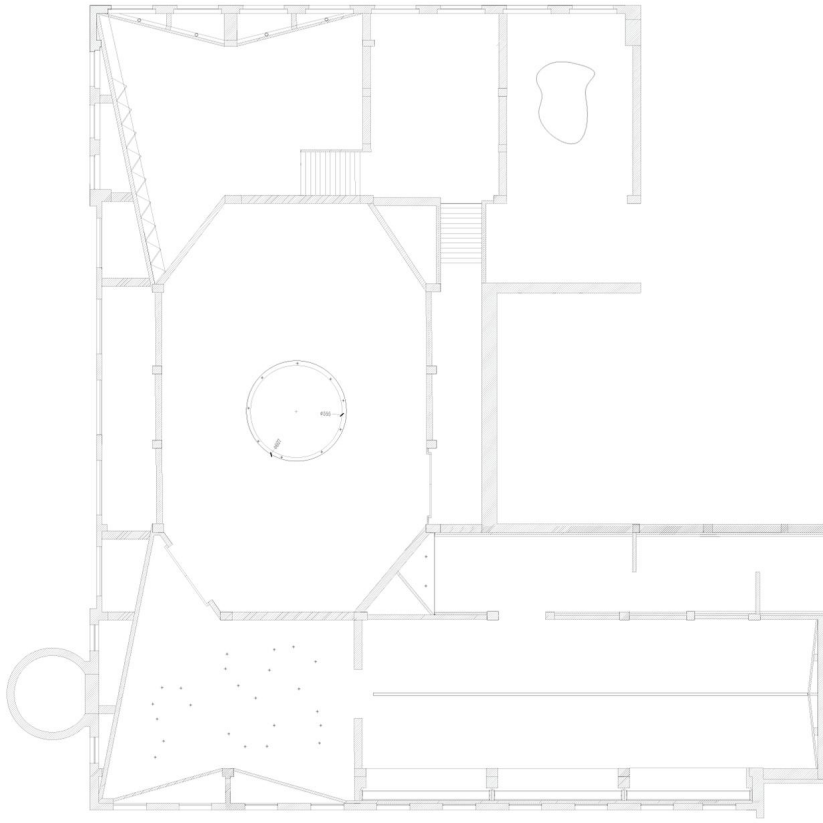
Art.	W	V	lumen	% led	A cm	B cm	C cm	D cm	E cm	
CRUZZORITE 50M	4,90	12	440	3000	8	50	8	4,5	12	Trasformatore incorporato/Built in transformer
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CRUZZORITE 90M	10,50	12	880	3000	8	90	8	4,5	13	Trasformatore separato/compresso/Remote transformer including
CRUZZORITE 110M	13,20	12	1100	3000	8	110	8	4,5	13	Trasformatore separato/compresso/Remote transformer including

Attenzione! e pag. 30/Power supply units on page 30
 Classificazione energetica: Energy class

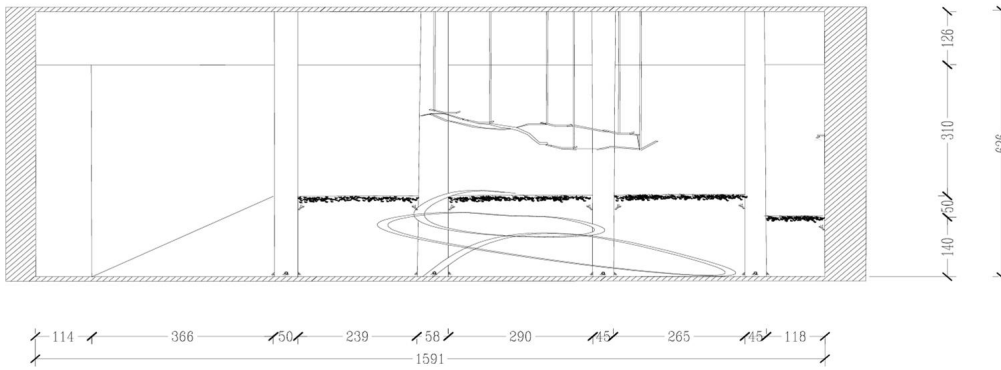
Materie plastiche: PVC, ABS



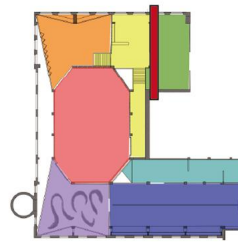
plan

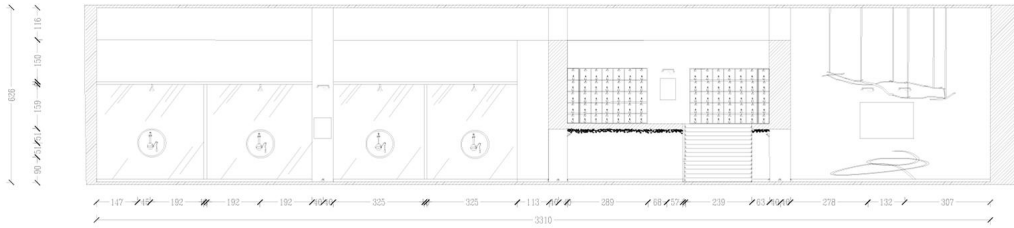


ceiling

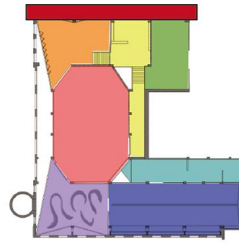


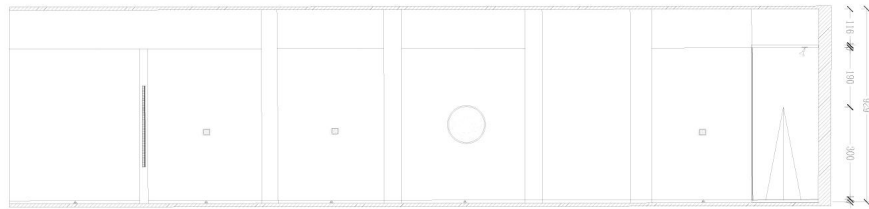
elevations



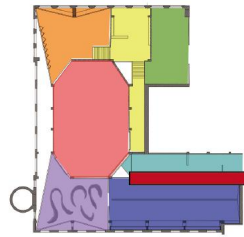


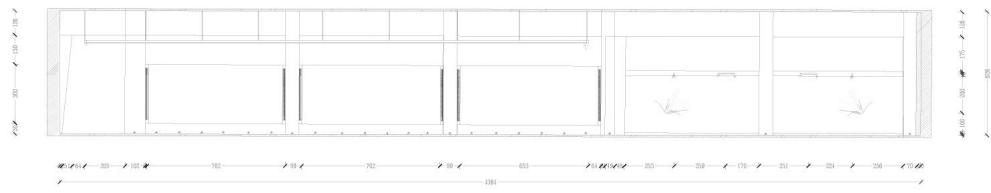
elevations



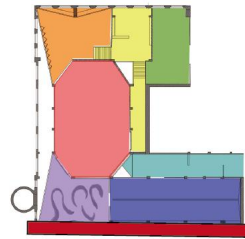


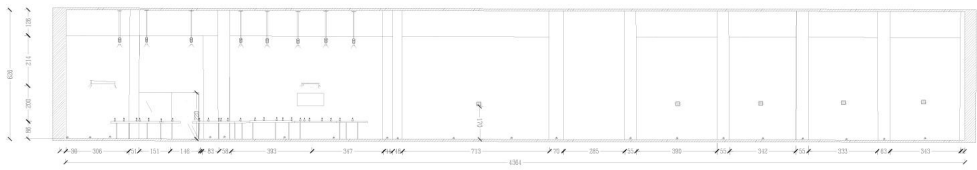
elevations



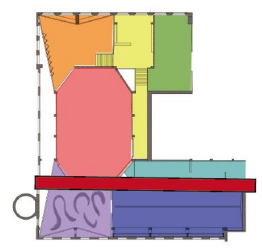


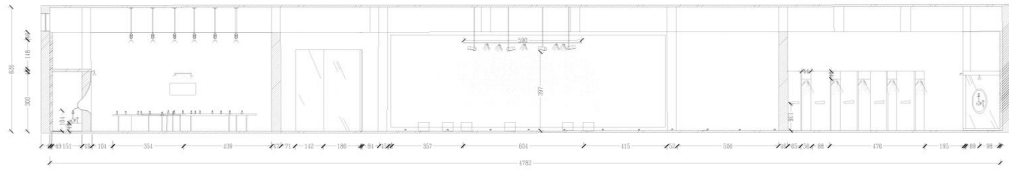
elevations



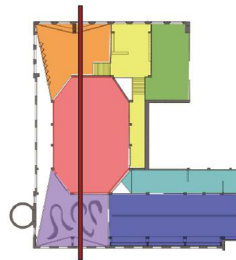


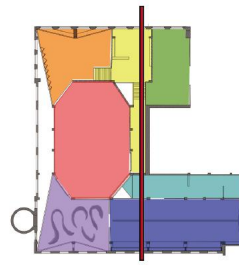
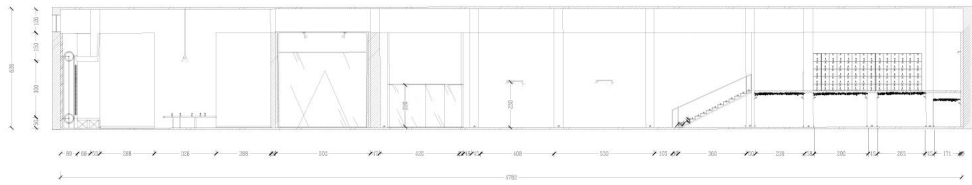
elevations





section





section

CHAPTER 5

1. THE IMPACT AND VALUE OF THE SENSE OF SMELL FOR

THE DESIGN

Some special populations, such as the blind, they can't see, they can fear in many places, imagine, for them to reach a how hard it is to want to go to the place, and they travel the number of times a lot less time than normal social contact, which means that they contact with the outside world is very difficult to communicate with others, it will affect their mental health and quality of life, if we have the taste as a tag, or in certain place in them through the blind road will have a unique taste, or when they arrived at a certain place in carrying on the cane based on GPS navigation to identify and peculiar smell, so they are not afraid I don't know where I, such a trip would not be a heavy heart, it would be like the building of the subway station, specifically for the blind only they "look" to the name, and he also won't let out of pure and fresh smell in the general population have hostility or discrimination to them, there may be gaps in such a design concept, but stylist is a powerful, their packaging for the brain will make our life more perfect and more comfortable.

There are a lot of people such as the department of obstetrics and gynecology, women in childbirth nervous worried about her family in the operating room, these groups of people have older parents, they are anxiously waiting if you have to let them relax or pleasant taste may reduce the health burden of tension and fear.

Even in some also need happy occasions, such as the kitchen in the home, why do we like to have dinner in the restaurant or the bakery bread always smell than at home, because in the dining place, food inherent scent reminds our appetite, it will make us think of tasty and delicious food, we ate with good mood. Consider in another thought, the vast majority of people will miss mom's cooked food, it is an unforgettable taste, the restaurant or canteen where these business or service if can bring the taste of home to nervous busy people, the food maybe they can be more attractive, and diners will also have a relaxed feeling.

Or imagine the taste of pictures can be taken place at that time, such as the jungle or those rare sight can keep some good memories to more people, and if lovers to record such pictures, even if how far apart will remember the taste of each other.

These ideas, but the smell brings us part of the experience and effect, the designer to discover, summarize and contact, finally solve the problem they found about life, and even some emotional change can make life more wonderful.

CHAPTER 5

1. THE IMPACT AND VALUE OF THE SENSE OF SMELL FOR THE DESIGN



What can the sense of smell to do for the design?

for example, such as recording studio. Singer when preparing the recording will be brewing in such space feeling, familiar with a particular emotional atmosphere, it all depends on the singer himself in the brain to complete, and there are a lot of can't find the feeling, so an emotional song need time to complete. The studio environment is such, to the effect of sound, as shown in figure. I want to in such an environment can incubate affection singer emotion is very rich, because such an environment, really not too easy to hook up too rich emotional memory. We imagine that if the advantage of the characteristics of the sense of smell, we make some taste in concave and convex on metope, can also be in the light, even simple ventilation or directly on the microphone, he does not affect vision, also won't exist form, even you don't need to do some special action, you only need to breathe, breathe naturally, some singers recording for a recall or feeling will do some strange action or with a strange thing, why not let our studio to be a switch of the emotion?





For example, some special populations, such as the blind, they can't see, they can fear in many places, imagine, for them to reach a how hard it is to want to go to the place, and they travel the number of times a lot less time than normal social contact, which means that they contact with the outside world is very difficult to communicate with others, it will affect their mental health and quality of life, if we have the taste as a tag, or in certain place in them through the blind road will have a unique taste, or when they arrived at a certain place in carrying on the cane based on GPS navigation to identify and peculiar smell, so they are not afraid I don't know where I, such a trip would not be a heavy heart, it would be like the building of the subway station, specifically for the blind only they "look" to the name, and he also won't let out of pure and fresh smell in the general population have hostility or discrimination to them, there may be gaps in such a design concept, but stylist is a powerful, their packaging for the brain will make our life more perfect and more comfortable.



“TAKE CARE OF YOUR MUM”

- John Gorst -

© Dave Young/Rex Features

new father waiting for his new baby and wife

There are a lot of people such as the department of obstetrics and gynecology, women in childbirth nervous worried about her family in the operating room, these groups of people have older parents, they are anxiously waiting if you have to let them relax or pleasant taste may reduce the health burden of tension and fear.

ZHANG MENG





the smell of the foto

Or imagine the taste of pictures can be taken place at that time, such as the jungle or those rare sight can keep some good memories to more people, and if lovers to record such pictures, even if how far apart will remember the taste of each other.

These ideas, but the smell brings us part of the experience and effect, the designer to discover, summarize and contact, finally solve the problem they found about life , and even some emotional change can make life more wonderful.

These thinking about the sense of smell to help us find the feelings of people . In more and more humanized design trends, designers need to pay more attention to our house, our space. Designers not only to understand why need to use of five senses, but also to master the principle of the five senses.

If future design can understand everyone's heart so this design attempt , perhaps can let people understand our memories and past experience is better able to promote our positive emotions and states of mind. The designer need is how to let people find it.

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POLYTECHNIC UNIVERSITY OF MILAN



POLITECNICO
MILANO 1863

DESIGN FACULTY
INTERIOR DESIGN

THE IMPORTANCE OF EMOTIONS FOR SPACE

THE SMELL AND EMOTIONAL MEMORY
THE SPACE AND EMOTION

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A.A. 2013-2015

ABSTRACT

People have rich emotions, especially when we are faced with the memory of the past, our emotions will be different. The past happiness, anger, sorrow, joy will affect our mood today. These memories will affect our now, the reason is that we have a very deep feeling for the former experience, it has formed the subjective characteristics of human cognitive environment and things—emotion. Emotional help us remember. Our feelings are composed of sight, hearing, smell, touch and taste. Most of these sensory abilities (five senses) in the form of 3D to us. The more feeling rich, the emotion more profound, the memory will be lasting. When the five sensory abilities (five senses) again encountered a similar situation, our past emotions will be aroused, we will begin to recall the past. In these senses, smell is always highly important factors influencing the human emotional system. In fact, emotion and sense of smell is influence each other, this is because the sense of smell is to strengthen the memory in the human brain. We can use smell to understand people's emotions, also can use smell to satisfy people's emotions. In the design, different functions space design needs to have different mood emotion reflection. The designers can use the particularity of the sense of smell, the purpose is to better know the emotional needs of the people, and use the sense of smell makes the space can meet the needs of people in different environmental. Make the space design more humanized.

Keywords: smell, emotion, Kansei Engineering, design

RIASSUNTO IN ITALIANO

Le persone hanno ricche emozioni, specialmente quando ci troviamo di fronte alla memoria del passato, le nostre emozioni saranno differenti. I momenti felici, quelli tristi, la rabbia e la gioia vissuti in passato influenzano il nostro odierno stato d'animo. Tali ricordi influenzeranno il nostro presente, il motivo è che abbiamo una profonda sensibilità per l'esperienza del passato, e questa ha formato le caratteristiche soggettive dell'ambiente cognitivo umano e le emozioni. L'emozione ci aiuta a ricordare. Le nostre sensazioni sono composte da vista, udito, olfatto, tatto e gusto. La maggior parte di queste abilità sensoriali (cinque sensi) ci si presentano in forma tridimensionale. Più ricca è la sensazione, più profonda è l'emozione, la memoria sarà duratura. Quando le cinque capacità sensoriali (cinque sensi) si imbattono di nuovo in una situazione simile, le nostre emozioni passate saranno suscitate, inizieremo a richiamare alla memoria il passato. Fra questi sensi, l'olfatto è sempre un fattore molto importante che influenza fortemente il sistema emozionale umano. In realtà, l'emozione e il senso dell'olfatto si influenzano a vicenda, questo è perché l'olfatto rafforza la memoria nel cervello umano. Possiamo usare l'odore per comprendere le emozioni della gente, come anche per soddisfarle. Nel design, la progettazione spaziale di diverse funzioni ha bisogno di avere diverse riflessioni emozionali. I progettisti possono utilizzare la specificità del senso dell'olfatto, lo scopo è quello di conoscere meglio i bisogni emotivi della gente, e utilizzare l'olfatto rende lo spazio in grado di soddisfare le esigenze delle persone in diversi ambienti. Rendere il design dello spazio più umanizzato.

Parole chiave: odore, emozione, Kansei Engineering, Design



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CHAPTER 1

1. MODERN DESIGN IS KANSEI

MODERN DESIGN IS KANSEI

Contemporary design market environment need to meet the perceptual demand, designers need to find a way to understand the real needs of customers.

People choose products in modern life, The main reason is the actual demand, for example, we need a pencil to write, will go to the stationery shop, we need a dress, going to women's clothing store. In many of the same product, the choice of people is affected by another demand, want to stand out in the many similar products will meet the demand of sensibility. Many disciplines of scholars have studied about it. It takes its name from the earliest Japanese *カンセイ* (sensibility), literal translation into Kansei Engineering. 1993 Japan to research the possibility of Kansei Engineering development, the government's financial support and academic research, in the end, in 1996, Japan set up the "Japanese Kansei Engineering society".



THE IMPORTANCE OF EMOTIONS FOR SPACE
THE SMELL AND EMOTIONAL MEMORY
THE SPACE AND EMOTION

DONALD A. NORMAN
AUTHOR OF *THE DESIGN OF EVERYDAY THINGS*
EMOTIONAL DESIGN



TLFeBOOK

Donald Norman
The book *emotional design*

Actually American scholar Donald Norman has put forward a similar theory, he put forward three different dimensions. The three dimensions have new names (visceral, behavioral and reflective level) and partially new content. This in his book *emotional design* is detailed explained how to apply.



In fact, The earliest, the designers to note the importance of it is not only in Japan, in earlier studies perceptual engineering institutions in Europe is human ergonomics laboratory at the university of Nottingham in the UK.





South Korea's
Samsung
3D Television

The research of this discipline has become the government's industrial projects in some countries, such as South Korea, the government decided in the 21st century will be make "Kansei Engineering technology" to be a comprehensive application to industry. South Korea's Samsung group already has a very deep emotional engineering research. In China, also have related research in recent years, in Xi'an Jiao Tong university and Beijing university of science and technology have academic research.

In fact, the description of the perceptual technology can be summed up: through product influence the user's sensory (five senses) emotion, study summary. The purpose is to make the products better meet the needs of the pleasure and comfort of the user, so as to stimulate the use of consumer desire and the desire to buy. Since engineering, is to find out products can stimulate consumer factors and forms of pleasure, and use the method of scientific summary and application.

Through Kansei Engineering practical application, people can feel the sense of belonging and identity, people can get the satisfaction of body and mind. Can say, now from the design of the Functionalism (form following function) into emotionalism (form following emotional). This requires a design products to meet the physiological needs of customers and to satisfy their psychological needs. Now the central theme of design researchers also from "technology as the center" into a "user as the center". People in science and technology with continuous innovation whether it is steam, electricity or information. It needs to have a higher level. But consumers are not only consider the functions of technical capabilities, but also pursue satisfaction and pleasure personalization, diversification and psychological. This is the result of the operation of the market and the results of the design. Of course, how to clearly know the needs of the user is satisfied. The needs of users in most cases can't get the exact answer through simple language communication, at the same time, the strong demand stimulate the design needs to continuous innovation, now, the designer team and researchers began to find their way.

Perceptual (Kansei) affected by different individual need, through the five senses to get everyone's different reflect.

First of all, we have to understand the sense of belonging in the human emotional need is belong to what kind of human needs?

From the design point of view, the sense of belonging exists in every aspect, small to individual needs, to urban planning, must consider the psychological needs as far as possible. Such as urban design, the sense of belonging is an important link. It can improve the well-being of people in the city. Everyone is afraid of loneliness and lonely, the design of the city at this time is not satisfied with simple modelling and convenience. Simply square and landscape street does not improve, like MAD architects host architects Ma Yansong since the childhood grew up in the courtyard house of Beijing, the urban design point of view of traditional Chinese have very strong feelings. "Cities such as Beijing, Suzhou, designer is with a kind of faith to build a city, so they can build something been around a long time, influence for generations, the city has a soul. If you build cities without thinking, just with a very utilitarian purpose, to come out of the building of the city, there is no soul. There is no soul in the city, people are difficult to have a sense of belonging."





MAD
MA YANSONG
BEI JING
Hutong Bubble 32



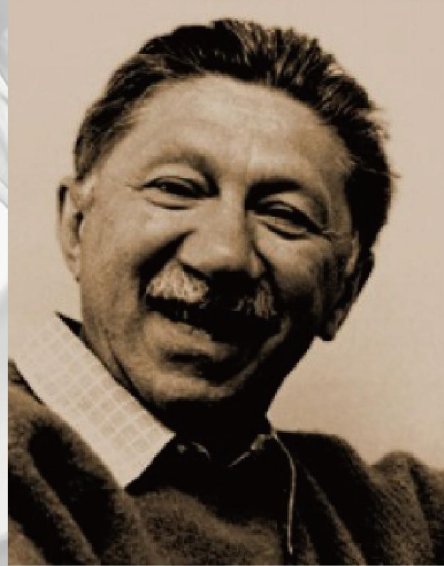
CHAPTER 1

2. MASLOW'S THEORY OF HUMAN MOTIVATION

MASLOW'S THEORY OF HUMAN MOTIVATION

From the perspective of science, the behaviorist Maslow's *hierarchy of needs* in 1943 mentioned in the paper, the basic requirements including Physiological needs, Safety needs, Love and belonging, Esteem and Self-actualization, etc. These need to constitute a hierarchical structure, there is a theory that meets the need of the former, under a need arises.

Is difficult in these demand even if everyone has the same hierarchy of needs, but because of everyone's education background, living habits and so on are different, the same demand there will be differences. How to know the needs of different people? Behavioral psychologists believe that 80% of our impression of others from the non-linguistic factors. That is to say, most of them are from the senses. That is why before you hire an employee, must want to see him.



Maslow and his *Hierarchy of needs* in 1943

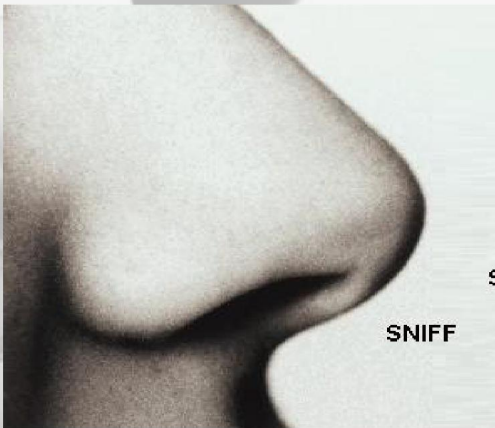
CHAPTER 1

3. SENSE OF SMELL BE EVOKED THE LANGUAGE OF EMOTION

SENSE OF SMELL BE EVOKED THE LANGUAGE OF EMOTION

Research of the senses is better to serve the design , serve the people. And among the five senses , sense of smell in the human brain's special task is emotional memory , also can say the sense of smell makes people have a very subjective feelings for the past experience of things and things. Those stored in the brain , once they awakened, those feelings will be restarted. sense of smell function very perceptual, for the modern design pursuit for Kansei engineering , the sense of smell must have a powerful ability to help designers to better close to people's feelings. And those especially need emotional comfort and help the crowd is especially suitable for use of sense of smell , maybe olfactory design to offer help.

the sense of smell



SNIFF



CHAPTER 2

1. FIVE SENSES

FIVE SENSES

We have a lot of sense organs, eyes, nose, ears, mouth, skin and so on, they constitute our known as the five senses. The five kinds of feelings is visual, hearing, smell, touch and taste. For the same thing, we use different senses to feel, our views on this thing also can have great different. According to the study, the human body is the most profound sense perception of sight (37%), followed by the sense of smell (23%), hearing (20%), taste (15%), the last is the sense of touch. They work together to complete the experience, and influence each other. For example, saw the beautiful food, we should think it tastes very good, our appetite will tell us "it should be very delicious", we would like to try it. A not beautiful food, from the vision we will first ask yourself do you want to eat, or not be that big appetite. This is the sense of sight influences the sense of smell and taste, the same, the sense of smell will also have an effect on taste and touch, this shows, our senses are interactive, they formed our impressions of external things and feelings.



CHAPTER 2

2. THE DESIGNER AND FIVE SENSES

THE DESIGNER AND FIVE SENSES

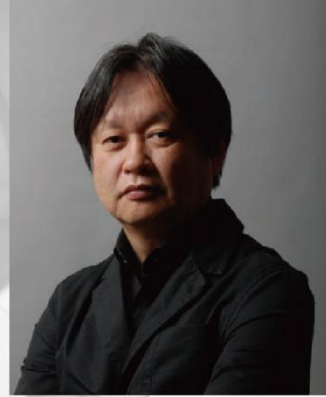
Designers how to use the five senses influence people. They are like five lines affects people's inner feelings. How to use good, is the wisdom of the designer.

As we know, the five senses is a key factor for us to understand the world. They work together for our body, then feedback to the brain. The last part is the emotional memory and the reflection of behavior. In fact we more to stimulate the senses, it will be more sensitive. Our experience will be more profound.

Without Thought

There are a lot of designers in the design be good at using these combined to stimulate our feeling. Japanese designer, for example, Naoto Fukasawa, he is a interesting designers, from his fruit juice packaging design, we completed a set of unconscious behavior, (without thought). The appearance of the juice can be seen at a glance what kind of fruit. At the same time, the sense of touch of specially designed to simulate the different fruit texture, such as the kiwi, the surface of the packaging is hairy. This design, greatly improving the user of sensory stimulation, increased the purchase desire, at the same time, the increase of the sensory stimuli to make the whole process is interesting. Naoto Fukasawa said his design concept is the "without thought".

Naoto Fukasawa

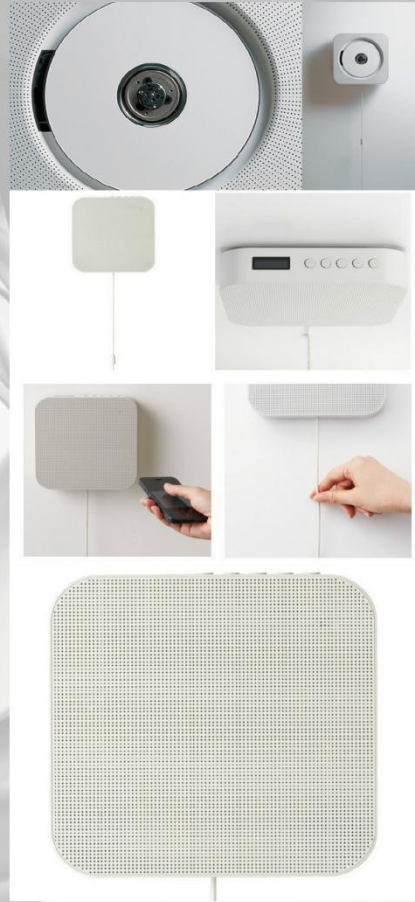


"Unconscious design" (Without Thought), also known as "intuitive design", is Naoto Fukasawa, for the first time put forward a design idea, namely: The unconscious action converted to the visible things. For example, the people who often eat rice know put some seasoning when cooking rice to make rice can achieve better taste. For example, put vinegar can cook the rice is more soft and tender, even though most people know that this common sense, but because there will be inadvertently forgot to add seasoning. When people cook rice has a unconscious action to automatically add seasoning, this design is called "unconscious design." The simplest explanation is to use simple behavioral habits replace you easily forget or separate complex behavior, and retains its good results. Thi is a kind of hint, our usual life habits also kept five senses of the stimulus, five senses under the stimulus of subconscious actions may be like a switch, when it is opened, users get the particular satisfaction. Ok, we can say Naoto Fukasawa is an intelligent designer, his clever with five senses achieved his aim, also to please the customers.



Naoto Fukasawa the fruit juice packaging design

And for example, he designed the CD player, when we were children, we met the light, and naughty to pull a light switch, and this kind of behavior, as we grow up, it will still be a kind of hint, but when you pull, it is not the light but the music, then you go to the sitting room is much more interesting to press the black button. Of course, the most interesting is the CD on the player make rotation, like notes were flutter in the wind. This design is more like a synaesthesia design.



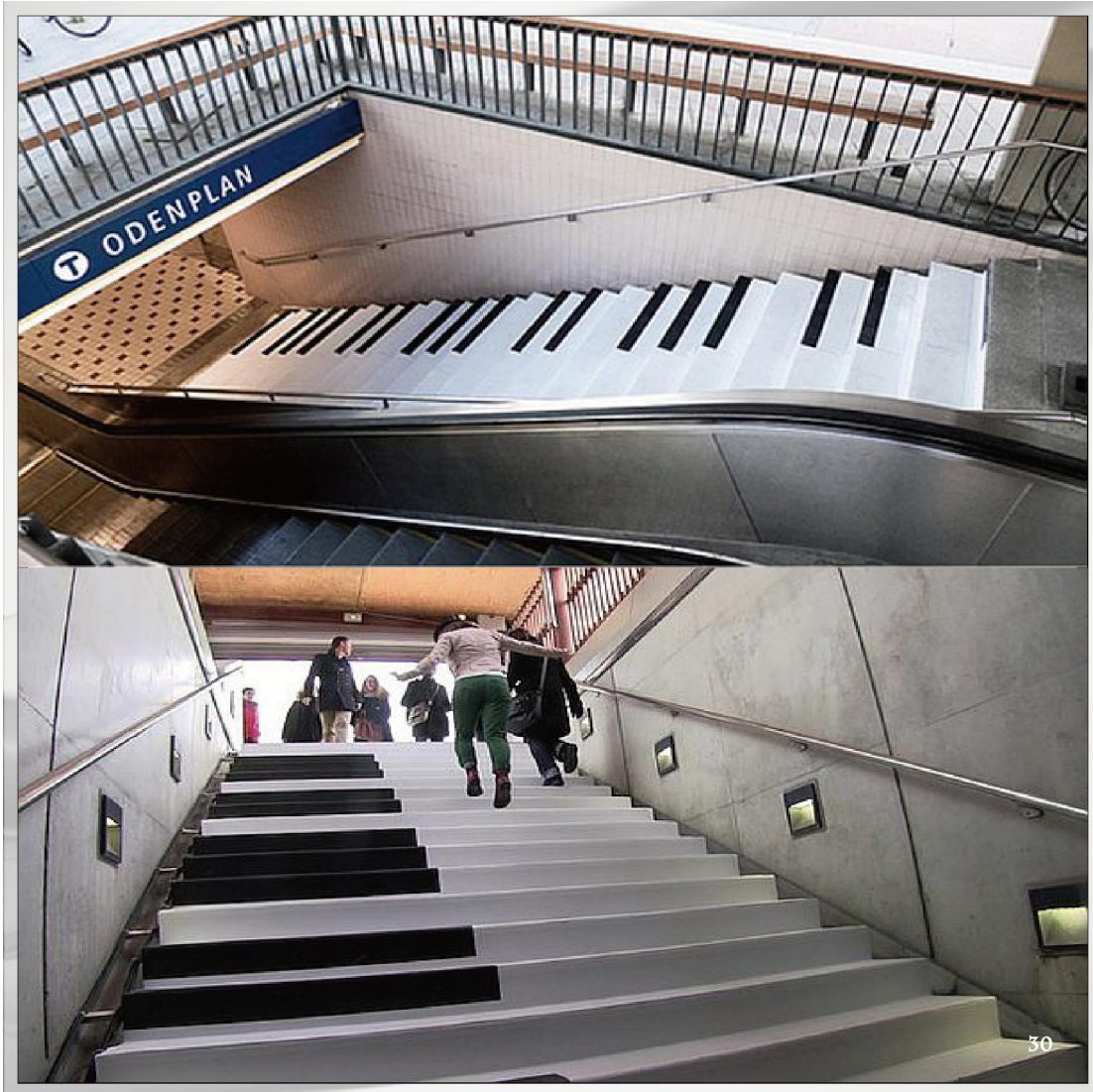
Naoto Fukasawa the CD player



Five senses in the modern design is method ,also is the pursuit of goals.-
Can see some interesting design in the present life ,I always mentioned
"interesting" , because "sensibility" (Kansei) need "emotional" , people
need emotional comfort.Interesting will necessarily promote people more
deeply loves the life, let a person from the bottom of the heart are happy to
participate in, and enjoy it. Such as the sound, from our birth and heard
mother's lullaby to we heard carol to the dead relatives. The sound ,we can
use to communicate, when it is involved in the improvement of the life,
Also becomes fun.

public facilities design

For example, a public facilities design to promotion public health . in metro stations always crowded with people waiting for the elevator, but few people will take the initiative to want to climb stairs, simple stairs is a good way to exercise , how to allow users to take the initiative to take the stairs instead of waiting for the elevator .In Stockholm, Sweden, Odenplan, Volkswagen uses the export of a metro station completed a design, they took a day at the exit to filmed a video, the content is people choose elevators and stairs . Then , the staff put sound by induction device on the stairs and decoration the pattern on the surface, to make it look more like the piano keys . The next day, early in the morning, with the coming of the first wave of people, The subway station there was a wonderful sound , very interesting , also very wonderful , the people heard more and more, and few people choose to go to the elevator and chose the stairs , when people up the stairs ,at the same time we can see from the inside of the camera ,they are a smile, like the children.Thus, a simple acoustic sensor design, people take the initiative to choose the healthier way and at the same time they enjoy it. And I think this keys stairs is corresponding to the people receive the feeling of sight hearing and touch ,and enjoy this exciting experience of the short time, at the same time, the combined with the step on the interaction of the action, vision, hearing, touch each other the combination completed a perfect public facilities design.



device design

In the same way, in Monterrey, Mexico, a group of young designers about Alejandra Farias, Gabriela Mon Caola, Alejandra Garza and Sofia Mora team composed. They in order to solve the problem of a university student crossing the road made a device design. For school students need to across the road, the road vehicle, quickly, although there is a bridge, but most of the students choose to cross the road, or in order to facilitate this is quite dangerous. Design team used a sound interactive effect made a simple solution, they are on the deck of bridge was laid across the ribbon, with a sound induction, the when someone stepped on them, will send out the sound, and the sound is very childhood, the sound is like the little yellow duck in the bathtub, very interesting. This makes it impossible to resist, that the in teraction of ribbons funny sound, the bridge soon became the way that students choose walked across the road.

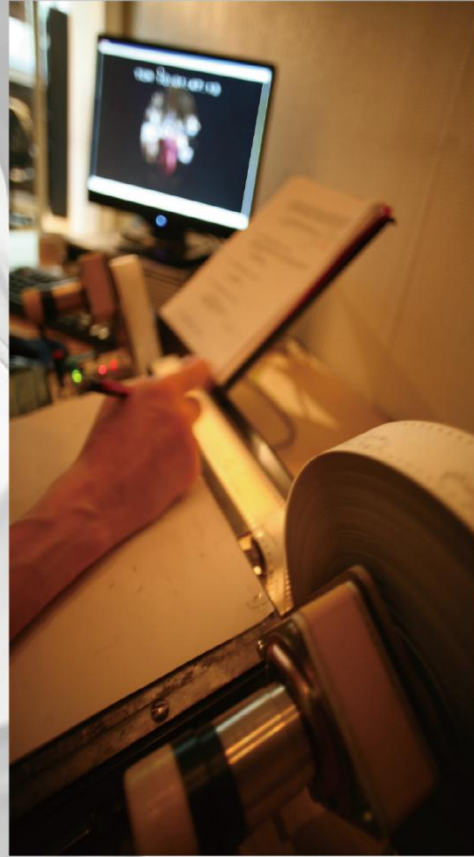
traffic light

There will be one of the most life design, the road traffic lights, in order to make people have more sense of time, these green lights will make a sound, and the rhythm will more and more rapid. This is also to consider for the blind. the sense of hearing instead of the sense of sight, the voice is like the shortness of time, it also makes the pedestrian emotional tension, the people like to hear the tick of the countdown time.



postsynchronization studio

Actually sound with a wide range of properties , in the life have many voices are aesthetic , and the different material also can make the different sound. Like a gong, when it bell , the part of the gong soaking in the water, the sound is changed, of course it is one of the characteristics of sound propagation, the combination of these different can simulate many sound ,like postsynchronization studio , the sound make combination and simulation a variety of scenarios and individual voice, such as the thunderstorm. behavior to make a sound like the content of posters, posters is not only a picture, also can listen to. For example the thunderstorm, material is thin metal, when we shaking it can hear the rumble of thunder.



graphic poster design

Designers will certainly not pass this way to complete the product they want. A set of graphic poster design accordingly. Saxso be hilarious Brazil branding campaign work, view their Interactive Posters that make a contributor when touched. The Noisy Interactive Posters. These posters printed with special material, through the Interactive



NOISY INTERACTIVE POSTER - TRACING PAPER



NOISY INTERACTIVE POSTER - BUBBLE WRAP

NOISY INTERACTIVE POSTER - METAL PLATE



3D MOVIE

3D technic

Scientists have discovered that the human's brain is very developed , our perception is also amazing, 3D movie is most people pursue the visual enjoyment, we would like to see the image more realistic more enjoyable. And the perception of our eyes, ears , and two nostrils is like the 3D movies, through the left and right different ways accept different information completely will restore to the brain , brain automatically make the combination and reappear into a 3D virtual reality environment.

3D music

Singapore musicians JJ Lin

About the left channel , right channel and 3D , I thought of a person , recently have a Singapore musicians JJ Lin . He will be 3D recording into the concept of traditional music , make when we listen to music , like in the various scenarios by his , listen to him sing as true , we like sitting beside him , and he singing with our ears . The principle is to use the technology of about 3D Dummy Head Recording , mastered the five senses , of course , can bring convenience to our life also can add fun . The purpose of the final is design to improve people's living standards and promote a positive attitude towards life .



@BeatsbyDre

Dummy head recording



ZHANG MENG

THE IMPORTANCE OF EMOTIONS FOR SPACE
THE SMELL AND EMOTIONAL MEMORY
THE SPACE AND EMOTION

3D music exhibition

JJ Lin in order to better explain the 3D music, he held an exhibition this year. People can go to different way of 3D music experience. He wants to make people more by means of 3D sound really feel, feel your inner world.

林 · 俊 · 傑
和 · 自己 · 對話
3D 聲音概念展

2015.12.26 - 2016.1.17 展覽時間 / 平日 12:00 - 20:00 | 假日 10:00 - 21:00
地點 / 華山 東 二 A
Horse Beach | KKBOX | KKBOX | HTC

ZHANG MENG

If you are still not clear how the five senses magic, it how to represent the human emotions and responses , I give you an example. We depend on our eyes see a leaves,it is the basil, and accurately that we is to rely on the sense of smell to know its unique identifying information. It is very sweet, a special kind of taste and smell. But the smell of a lot of time, and if we see it , don't need to smell , we take a look at will know that it's called basil leaves.The reason is that when we know it for the first time, we have already put it in our memory Banks, including our understanding of it and emotions, and we like it or don't like it, the information has been retained in our memory.When we see it in the flowers once again , we don't need to smell and can recall its unique taste, this is why the five senses are our links with the outside world "interesting language". Accounted for 23% of human cognitive sense is the sense of smell, the smell like the sight, and we have no choice, as long as we breathe , the surrounding environment with the smell will send the information to our brain.Our sense of smell have the magic than we thought.

the basil



photo by ailsa.w

Lo Siento Studio design the box



the smell box

A Spanish design company "Lo Siento Studio", they hope to design a box that has the smell of bread. They are for the Spanish bakery founded by Xevi Ramon make a branding and packaging work. Just show a little hole in the box, the people can smell it, and have the smell of the bread, and I want to buy it must keep on my way home to smell the smell of it, and eat it.



Lo Siento Studio design the box "TRITICUM"

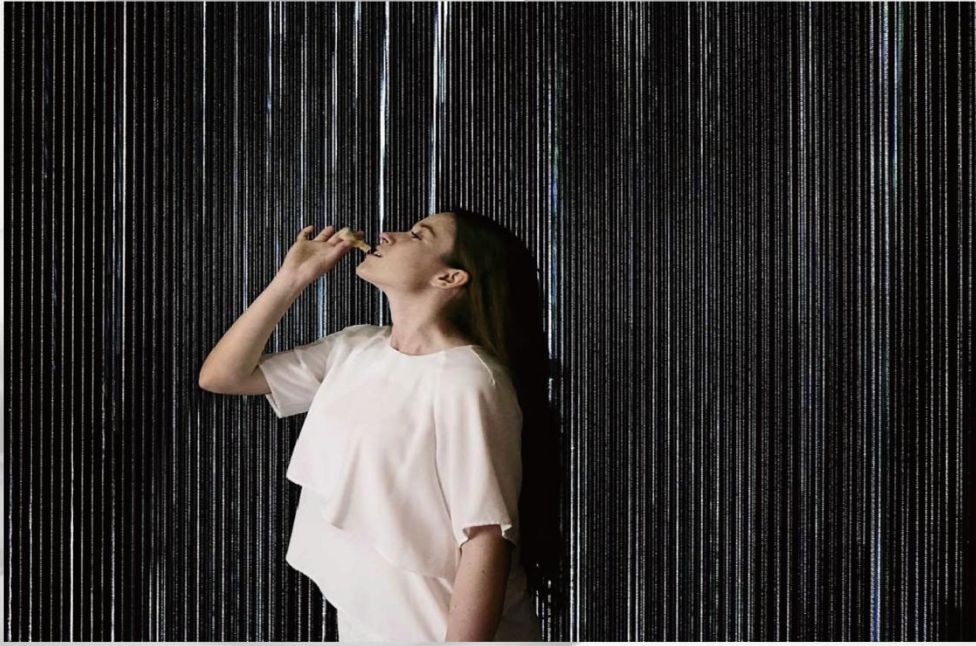


Smell can cooperate taste all kinds of taste, our sense of taste is not rich, we can only taste even acid, sweet, bitter, hot and salty. We can taste the taste of so many different because our sense of smell and taste stimulus with our senses. This is why a cold, food seem very bad. Seems to need to cooperate with other sensory taste is the best effect. Remember the milan design week 2015, there was a food stylist from Japan, he designed a rain of food, really is the sense of taste, sense of hearing is wonderful experience, he put the bubble sugar into small bottles, when people pour this a "rain" import, we can hear the tone of the candy, in the mouth this resonance is passed to the ear is like the voice of the rain fall on the ground. Really is out of memory. The sound of rain and rain fall to the ground scene be we remember, through the mouth in resonance imitates the sound of the similar to evoke memories of when it rains, we also put this sweet feeling for memory.

Japanese
Food designer
Hajime Yoneda



“The taste of rain”
Japanese
Food designer
Hajime Yoneda



If your five senses
not good ,
such as the blind.
How to do?

Said again , the sense of touch. Almost all our body touch on the skin , we can feel cold , hot , hard , soft , smooth , rough , etc . Our skin is encountered also can produce different response to different stimuli, such as cold when we will get goose bumps, will get very hot, hot red. We're almost through touch to confirm everything, we only see , or only listen to , is not enough . Even when we taste the delicious food is directly confirmed by mouth and mouth touch it . Touch for a specific population has irreplaceable effect , such as the blind man , they could not see, but hearing and touch are quite sensitive, the sense of touch became their understanding of the direct method and reading , if we can observe carefully, when the blind pour water in the cup, they will usually with another hand along the glass with the index finger into the cup, so that when the water met the fingers can know how many water in the cup, was the most should stop.

PROBLEM

existing cup

When the blind get a cup of water, they put their finger into the cup to know how water is poured. However, it is not good for sanitation and of burning.



1



2



3





the blind poured water

Here I introduce a Russian student designer Stas Neretin, he designed a set of Intimate Care Products Package Concept, product name is "NAKED", it is one of the works of Pentaward gold medal, the packaging design has a soft curve, similar to human NAKED body, the skin color and luster give a person a kind of illusion, this is a special kind of sensual pleasure. Is commonly used in shape, it abandoned the bottles design streamlined, ups and downs, irregular bottle looks individual character is dye-in-the-wood. It is interesting to note that when you touch Naked, it will give you feedback, like a living creature be touch area will blush on gently, and tender skin suffered minor injuries, like neretin said: "please to packing a little tender, it's really shy." Stylist is used to heat change color coating, the temperature of the hand directly contributed to the coating to shift from skin color to red. Through this interaction between people and products, product designers cleverly hints mild without stimulation, and also have increased interest in the product.

naked

Russian student designer Stas Neretin
Products Package





naked Russian student designer Stas Neretin Products Package

Germany Kolle Rebbe advertising company
cheese pencil

cheese pencil

The touch has a lot of form, some interactive action also is pretty good tactile experience, such as Germany Kolle Rebbe advertising company thought of a clever marketing, they put the cheese into the individual pencils, deserve to go up again a dedicated "pencil sharpener". Cheese is made from oversized pencils, a pencil on the scale and the label on the outer packing is not only with each dish need to cut off many pencils, even write how many calories cut down leads. And pencil lead is produced by garlic, chili, truffle, on behalf of the three flavors of cheese, cutting good cheese can be sprinkled on the dish, convenient to use and fun.



Pretty, or not pretty, very direct visual expression of his own opinion. Some of the carefree feeling on the vision or close guidance can bring the user different mood, can make people imagine that a lot of different good pictures, use this visual element in the design is very wonderful. Such as the pharmaceutical packaging: Donut pills, sweet visual response, not think to take medicine is a melancholy thing. Sugar, and the other a whistle really try to get the one to eat, because the characters on the packaging design is really like to eat many will ease.



the pharmaceutical packaging design

Donut pills

These five senses provide us
the design inspiration
of endless!

CHAPTER 2

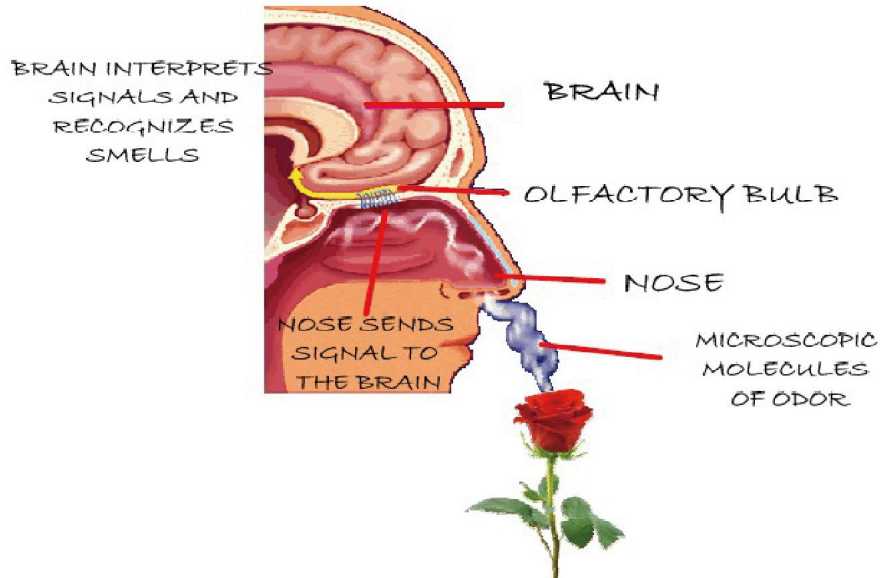
3. THE SENSE OF SMELL IS THE SWITCH OF EMOTIONAL MEMORY

THE SENSE OF SMELL IS THE SWITCH OF EMOTIONAL MEMORY

We already know the emotion demand is of critical significance for the contemporary design industry, it is more like a leading contemporary designer constantly innovation quality of life of a navigation. Designers are no longer considered just "good", but how to make the user feel "the good things is really interesting!" Exploration of five senses is only active in the scientific community in the past, and now, the designers from all walks of life also opened their sense organs, hope that through real emotional experience more valuable experience to meet and break through the inner demand of users.

Sight, smell, hearing, taste, touch, these secret "tentacles" perfected the brain to the outside world understanding and reaction. If make a metaphor, I think, the brain is more like a database, through our five senses cognitive to every outside information stored in the brain, and when to meet again active reflection we had knowledge of it, and record the updated information in the brain, and with the addition and subtraction of the amount of information and the degree of repeated stimulation and originally recorded on the strength of the different sensory approach can produce interesting "forget" phenomenon, with the five senses and the brain makes us to have a personal response, but these reactions happen to is the designer's collection of "user experience".

THE SENSE OF SMELL



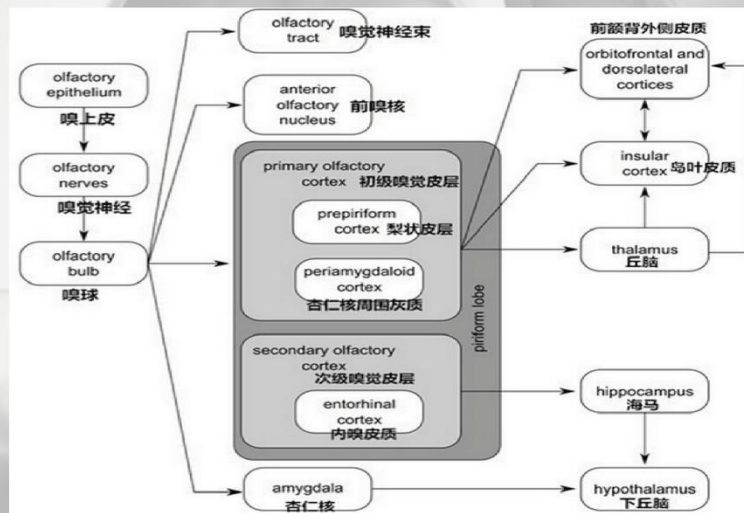
The principle of olfactory

In one of five senses interesting human senses, it depends on the nose to complete the acquisition of information, but can form a perfect emotional memories in our memory, it is another kind of emotional memory way of brain, unlike the hippocampus, he is on the sense of smell to complete nerve reflex, the last of the information is not stored in the hippocampus, its presence can be said, is to record the emotion. German scientists have found that in addition to the hippocampus and memory function in the human brain has a direct correlation, and a control of olfactory function is also closely associated with memory. This finding further reveals the physiological mechanism of human brain memory, can well explain the function of human brain memory, feeling under stimulus, such as the strengthening of the vision. Some epilepsy patients undergoing brain lesions memory impaired symptoms after surgery, it was found that the brain in addition to the hippocampus zone, another piece of the so-called "smell" the brain is also involved in the process of memory.

The smell in the brain is converted into memory? First of all, the odor molecules into the nose and olfactory neurons , after thousands of olfactory neurons and olfactory bulb, through the olfactory nerve bundle ready to enter the brain . These olfactory information through the two pathways are brain processes , these two pathways after brain route explains why the sense of smell and memory.

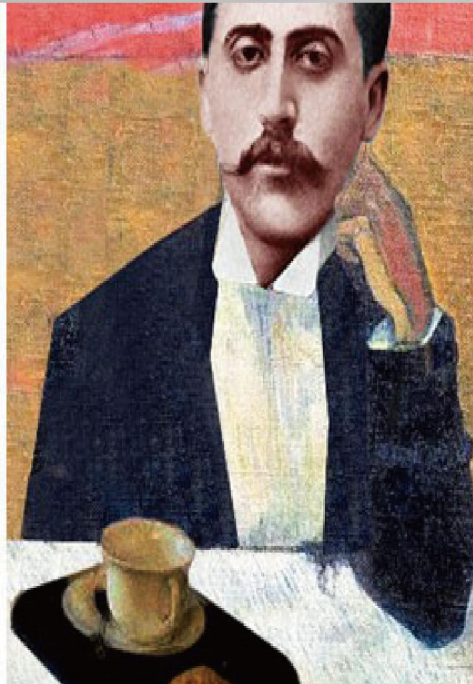
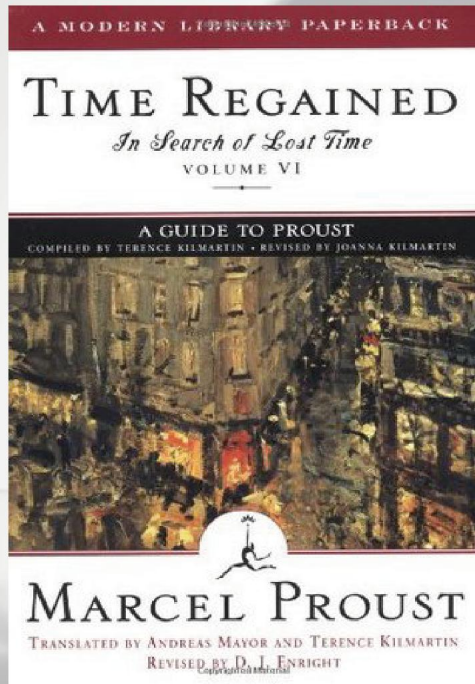


the relationship between emotional memory and the sense of smell



As shown in figure, the first major route: primary olfactory cortex — hypothalamus—the prefrontal cortex. The primary olfactory cortex include the amygdala, piriform cortex, parahippocampal gyrus. The amygdala and parahippocampal gyrus were mainly responsible for emotion and memory functions.

The second route: secondary olfactory cortex — olfactory cortex and hippocampus, the two parts is also responsible for memory function. According to the olfactory pathway, because the sense of smell after a lot of memory processing areas of the brain, so whenever smell, memory processing part of the brain are activated and evokes memories of the smell.



In Search of Lost Time

Marcel Proust

The author of *In Search of Lost Time*, Marcel Proust believed that olfactory memory more of the emotions, and it is not only the past record of truth. America's brown university psychologist Rachel Herz made such an experiment, the staff to the subjects provides three clues - images, sounds and smells, and then ask them to recall the past. Experiments show that the smell caused by recall more emotional, but not more vivid and bright.



This scientific conclusion is very interesting, the reason is that the sense of smell can't see and touch, can represent a kind of emotion in our memory, if this explanation is still not enough to understand, we can imagine when we inadvertently smell just mowed grass, most people will think of the nature, instead of grass itself. And spring most our mind is full of sunshine, the early morning, or some people think that the picnic, it's certainly not for the picnic is the smell of grass, but because of who I am at the picnic there or stay in your memory of the emotional part is with grass flavor, this is just a taste, but is a kind of taste, it makes you aroused a for picnic, personal emotions and emotional memory of spring, you may miss an unforgettable picnic in a spring.



Title *The Sense of Smell*

Creato Philippe Mercier, 1689 or 1691 - 1760, Franco-German, active in Britain (from 1716)

Medium Oil on canvas

Date 1744 to 1747

THE IMPORTANCE OF EMOTIONS FOR SPACE
THE SMELL AND EMOTIONAL MEMORY
THE SPACE AND EMOTION

Have to say that the sense of smell of imagination is very rich, when we smell the charming perfume, we will go to find the source, of course we will use the eyes to find the source, we will use around eyes search a cute lady, the reason is very simple, because our sense of smell is receiving the message "a lady", if, lovely lady just right we see the face, we looked at her and subconsciously use olfactory recognition if she sprayed the fragrance, but our hearts will almost certainly should be her. This experience tells us that sweet taste with a sweet lady, the emotion of subjective thought is the result of our past memory in the heart of emotion regulation.

the movie *Perfume: The Story of a Murderer*



ZHANG MENG

THE IMPORTANCE OF EMOTIONS FOR SPACE
THE SMELL AND EMOTIONAL MEMORY
THE SPACE AND EMOTION



A lot of film and television works have this characteristic of the sense of smell.

the movie *Scent of a Woman*



flower Amorphophallus titanum

The sense of smell is really amazing, it is very subjective to judge, he is not limited by what shape even touch, as long as there is, even a little bit can arouse people's mood and emotional change, for example, the nature of the stinky flower Amorphophallus titanum, its appearance is beautiful, but you will not like it, because she is beautiful because of smell warn you, it's too smelly. Again, for example, someone put a fart, if there is no voice, people no matter like it or not the taste, instant emotions, thoughts and feelings and even language and eye contact will be keen to react, and we will say the sense of smell is the most among five senses is not easy to lie, don't we can eat delicious food, don't look good things will also be able to endure, it feels uncomfortable or even habit, we would choose to hear bad music cover ears, but the sense of smell, as long as you are breathing, smell will stick take in your nostrils, some sensitive people even for perfume is the phenomenon of vomiting, the sensory response very personal, even absolutely personal. We can assume that, if the sense of smell is the difference between each of the emotional reaction way of the most sensitive, so designers can use it, in the service of a particular people or the environment?

CHAPTER 3

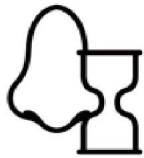
1. A BLOD ATTEMPT ABOUT THE SMELL&THE CONCEPT IS “THE SMELL SPACE”

A BOLD ATTEMPT ABOUT THE SMELL &THE CONCEPT IS “THE SMELL SPACE”

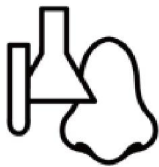
We initially understanding of Kansei Engineering, design based on human emotion as the starting point, and the emotion is very complex . Emotion is the attitude of this part of the whole , it with the attitude of introverted feeling, intention to have consistency, is a kind of complicated attitude on the physiological and stable physiological evaluation and experience. Emotion includes two aspects of moral sense and sense of worth, embodied in the love, happiness, hatred , disgust , beauty and so on. *Big dictionary of psychology*, said: "emotional is whether objective things meet your own needs and the attitude experience". General general psychology course also said: "the mood and emotion is one of objective things attitude held by the experience, just emotions tend to individual desire basic demands on the attitude of the experience, to tend to the needs of society desire and emotion attitude experience". This is a video about the definition of emotion. Designers need to learn how to capture people's emotional feedback in daily life, but also to design feedback back to human's daily life, make people not only know from life for a better way of life to let people know how realize the value of life itself, let people know how to remember and cherish the life intravenous drip and wisdom.



I made a bold attempt , in the hope that through this design concept can be infected people to cherish and gratitude those precious memories of life they happy - anger - smiling - painful life is like a movie, from birth, to our old , and the unknown future , no matter , we are standing at which moment in the life journey , we all thank once spent years can be emotional, cherish life, grateful life.



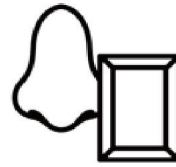
history



chemistry



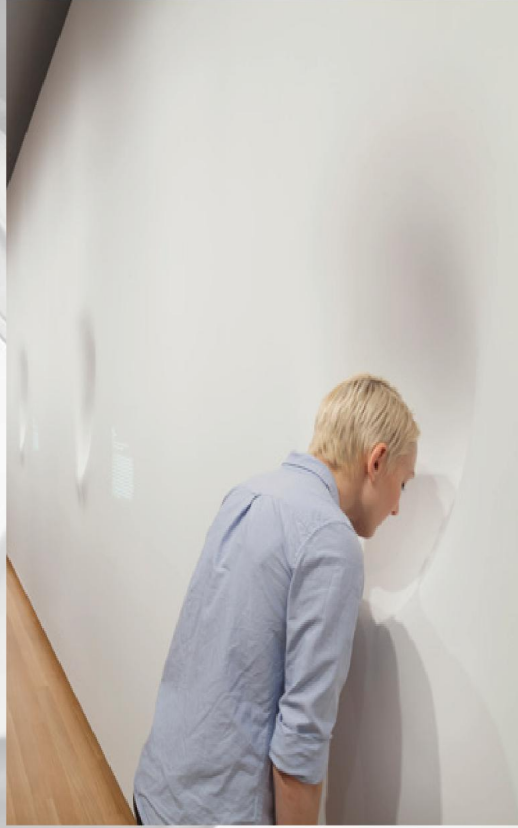
sensory



art

My attempt of this design is a exhibition design, includes the theme of the exhibition, content, and the design of the exhibition hall. I gave in the design concept of a topic, a common thread and a combination. Let the theme exhibition according to the clue to achieve. Smell my exhibition theme is : space , I want to present in this exhibition are different smells, these smells represent different things in life and experience , the typical example has a strong emotional color. Maybe a kind of taste is an old bike , but it may be your vehicle used by the whole family. May the taste of a taste is a lipstick, but that may be your first date. The smell from the moment of life ever. What happened something profound emotional memory, even the things. Have a common thread at the same time, it is a clue that is order, and the smell of the exhibition hall is from birth to old to change order of time sequence.

concept is a exhibition
of the smell, that about
the life.



Smell hold memory

I choose the smell is because through the analysis of related scientific resources and design a product I feel the sense of smell as everyone sensitive emotion "tentacles" can give designers a wealth of information, inspiration . At the same time, it also can be used as a feedback to people the gift of life, the emotional gifts may inspire people, soothe people's hearts, from the spiritual and emotional supplies design hope that gives a person the sense of belonging and bring spiritual satisfaction.

CHAPTER 3

2. CHOOSE THE SMELL

CHOOSE THE SMELL



Research on smell, there are a lot of scholars and researchers engaged in smell, they for tens of thousands of taste has their own way to collect and research purposes, these researchers, there are some people also smell artists and flavouring. For example, Jean Claude Ellena, Armand Petitjean and Olivier Polge, in 1988, he works in a international company (IFF) of spices & essential, for more than one brand of top class products research and development after several big success in the global scope of famous perfume, and flavouring genius Serge Lutens.

Some interesting artists of the smell. France, for example, the famous artist smell (KAISER (CHARM KAISER), he began to study in 1925 and collect all kinds of smell in the nature, development and the life, with all my heart all smell, for example, mud, snow, handmade chocolate is bitter coffee, including the human body odor and smell of the city, and so on. The smell of the persistent artists dedicated his life to the study of odour, 1936 formally established the smell museum (CHARM KAISER), CHARM KAISER perfume officially on sale in France in 1938.



Jean Claude Ellena



Olivier Polge

Sissel Tolaas is a contemporary Norwegian installation artist most widely known for her work with odours. During the 1990s, her work began to focus exclusively on odours. She maintains a "smell archive" in over 7000 airtight jars.

«*Rushton, Susie (August 27, 2006). "The Sweat Hog". The New York Times.*»

In 2004, the Research Lab was founded as part of Tolaas' studio. Situated in Berlin, the lab supports interdisciplinary projects and research involving smell, odour, and fragrance. Supported by International Flavours and Fragrances (IFF), the lab establishes communication between experts in different fields dealing with olfaction.

«*"Sissel Tolaas; An alphabet for the nose". Retrieved 2015-03-07.*»



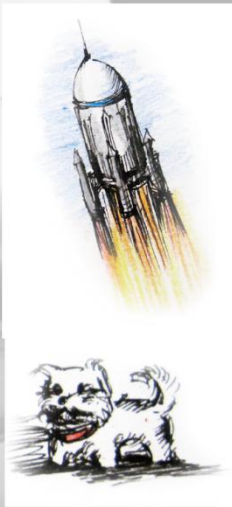
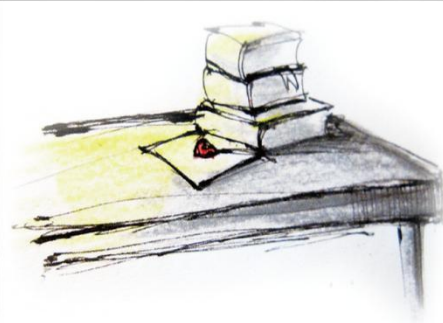


IFF

Some international flavors company also provides the scientific research and a lot of technical services, such as, the IFF, Swiss Givaudan Swiss Givaudan co., LTD. , of course, most of their research into production, also provided to the taste of our daily life.

My design concept to smell as the main body, and the smell of collection can be completed by the smell of the professional researchers and institutions. Such as a diary with smell the smell of the artist Sissel Tolaas, and IFF flavouring.

But the details in life, things, too much food, from birth to death, time is can't use "time" outside of the noun. So, I had three rounds of the selection work, first of all, I and some people to discuss and lists many we remember and forget things and things, and even feel, such as riding a bicycle for the first time, dad's shoes, the key to the new home, a person cry, embarrassed. Then I will these examples as 100. In a second round of screening, in the second round of screening, will choose the option to have the same feelings, finally only one, in this process, I will ask the people around you including my parents, my friends, even internship colleagues of the company. In the final round of screening, I will to complete this part, the reason is that I need the series into a lifeline, the smell of the different subject in different phase of my life, I would to quantify balance in order to keep the visitors will be able to in every stage of the display can be fully realized each topic. The last remaining only 43 kinds of topics.



the 43 smells

toy	sleeplessness
parents	friends
the first gift	lonely
classmates	neighbor
the first teacher	one important e-mail/tele-
blame	phono
birthday celebrations	the fierce competition
the first love	family
quarrel	retired
dream	help
injustice	abandon
travel	regret
trust	collection
sick	miss
graduation	death
the interview	grandson
embarrassed	
rent a house	
the test	
own	
work	
pressure	
get married	
successful	
the first child	

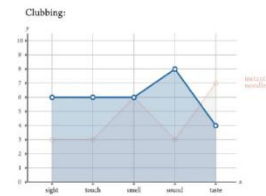
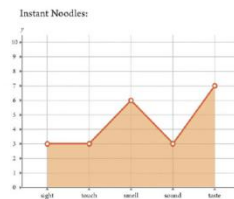


A wonderful speech

TED

He has a sense of about five in TED and design of the speech, he put forward design needs five senses, because different feelings more rich more comfortable, the better user experience. He gives some examples, including noodles, mountain climbing, etc.

Design should be considered under different conditions, the person's comprehensive sensory needs, rich as far as possible.

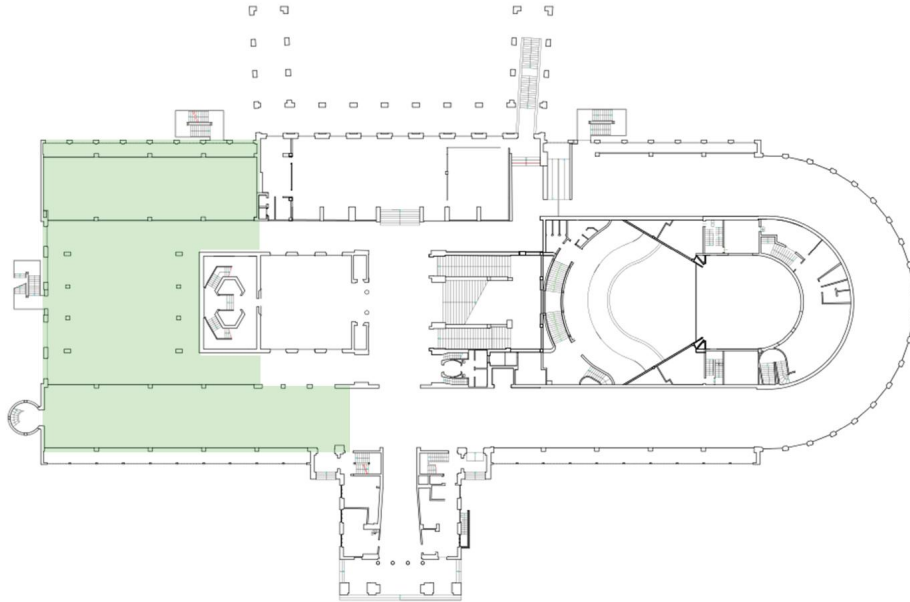


Jinsop Lee



CHAPTER 4

1. CONCEPT



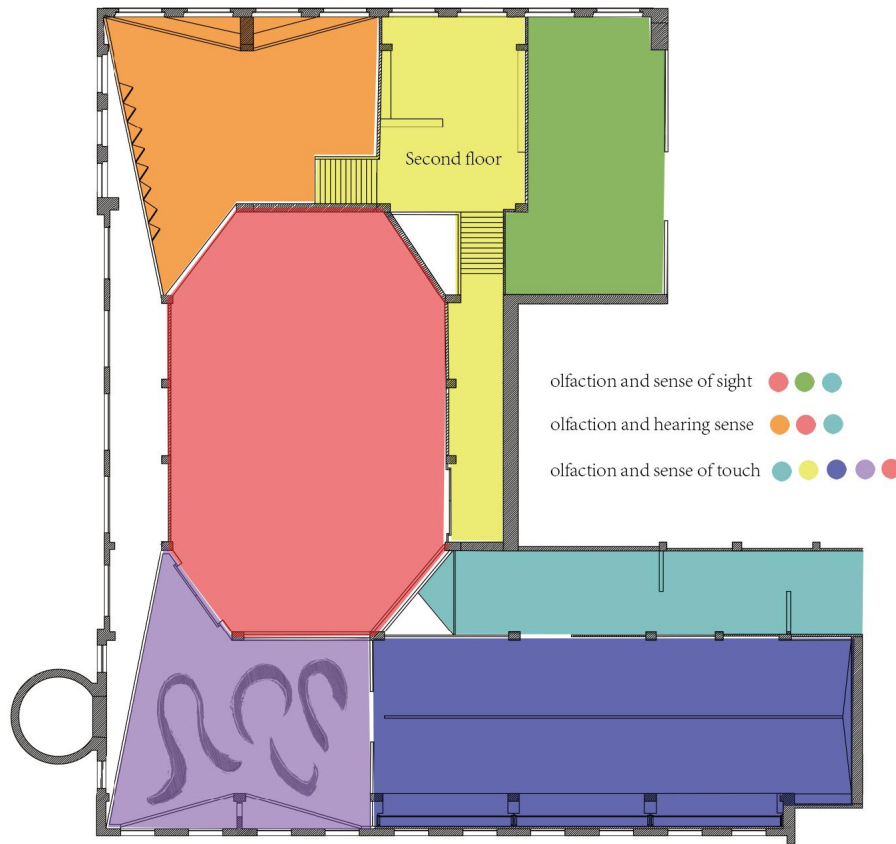
The location of the exhibition:

La Triennale di Milano (Viale Alemagna 6, 20121, Milan, Italy)
It on the ground floor, and near the entrance , the first exhibition hall of the left.

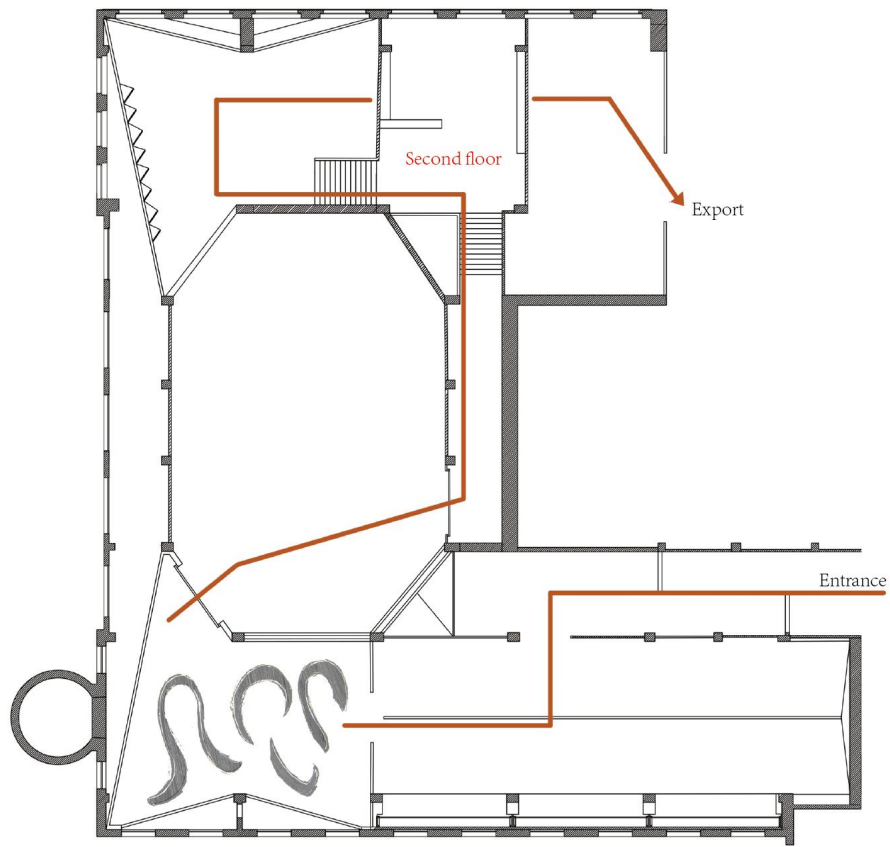
DESIGN CONCEPT

- 43 in the smell of life in different space respectively, from birth to death.
- At the time of the exhibition, people can smell different.
- Exhibition, a total of seven space, different space have different forms of display.
- According to the principle of the five senses, the different spaces using three kinds of combination of the five senses in the space. Different collocation can have different effects. When people experience, also had a different smell the memory and experience.
- three kinds of combination of the five senses:
 - olfaction and sense of touch
 - olfaction and hearing sense
 - olfaction and sense of sight

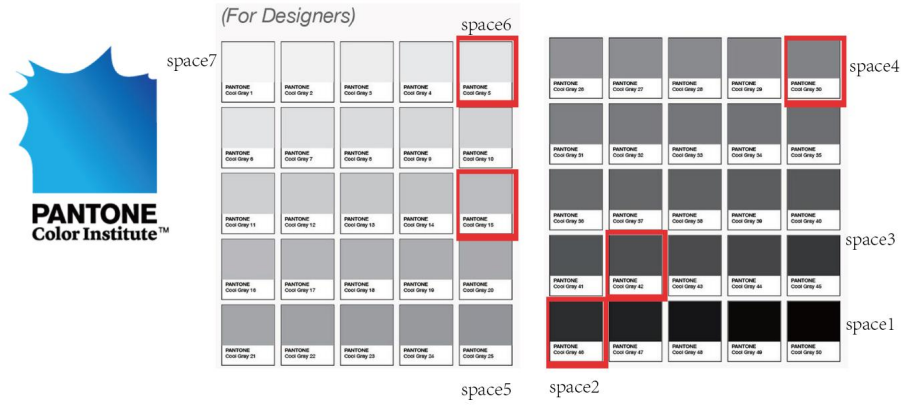
Functional area analysis diagram



Path analysis diagram

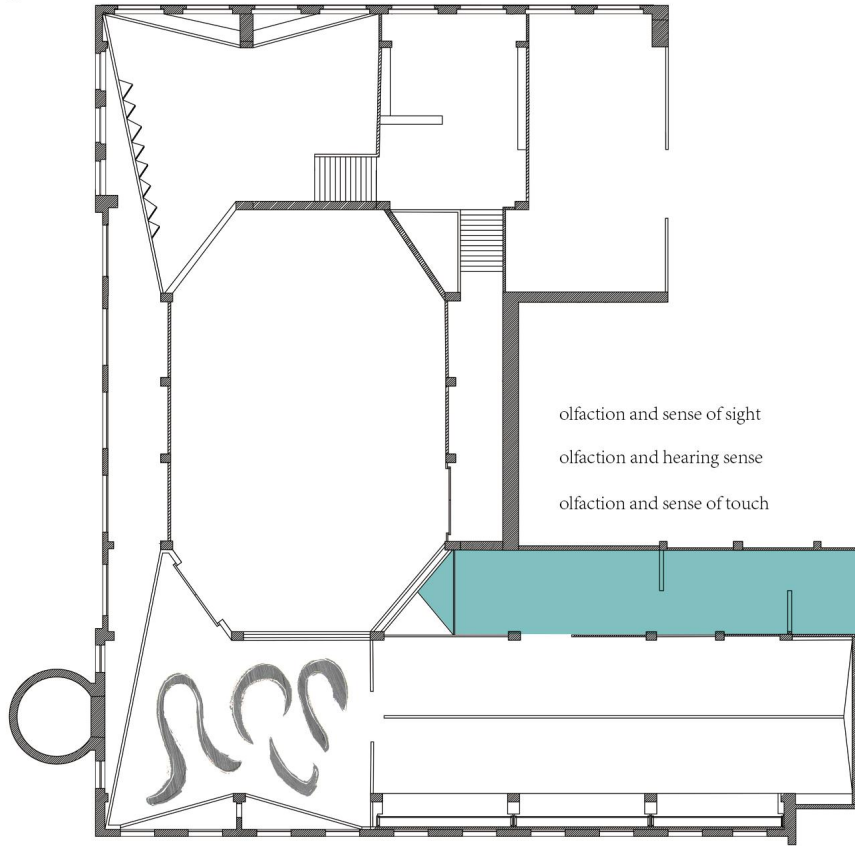


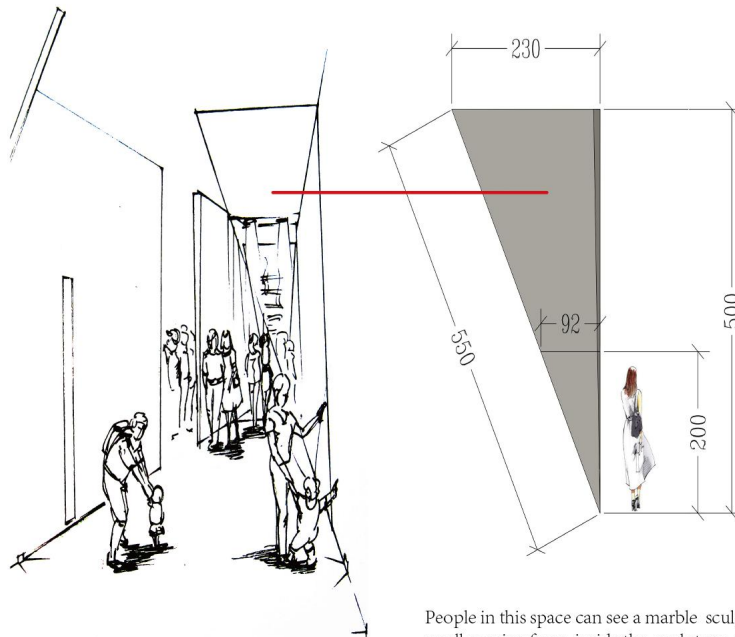
color of the space



Reason is that the space order is from birth to death , was a little girl on the memory of the world is not much, what also don't know, we know that we are old, memories we make our world a bright, so the color from black to white.

space1





People in this space can see a marble sculpture of the theme, the smell coming from inside the sculpture, people also can smell the surface of the wall, there will be a different smell. Wall and ground have 10 cm's point of view, people don't need to touch the wall, with his nose can smell the smell of the walls. The theme sculpture have the words, hollow out on the surface, there is the smell coming, to prevent the smell mixture, there is a glass block.





The light

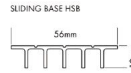
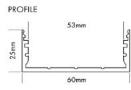
Because space is dark ,the ceiling is not illuminated.

on the wall

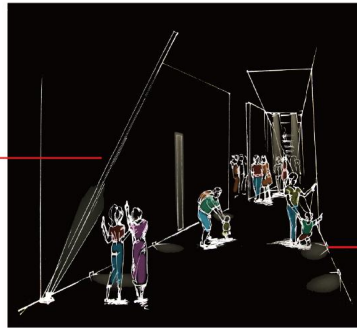
PROLED®
MBN LED®



Aluminium Profile L-Line Low



<http://ft.proled.com/en/products/product/proled-profiles-41/aluminium-profile-l-line-low-794/>



on the ground

iC
ICONE



Art.	W	V	LUMEN	LED	A cm
12	10	220	700	*K LED	8,9

PROLED®

MBN LED®



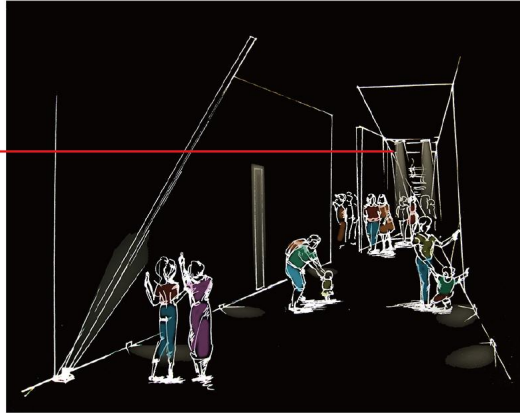
Tracklight 40 / Tracklight 40 Premium

TECHNICAL DATA

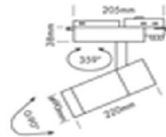
IP classification:	IP20
Power source:	100-240 VAC 50/60 Hz
Housing:	powder coated aluminium white
Driver:	including
Electrical connection:	3-Phase power track
Operating temperature range:	-10° C till +45° C
Dimmable:	no

PHOTOMETRIC DATA

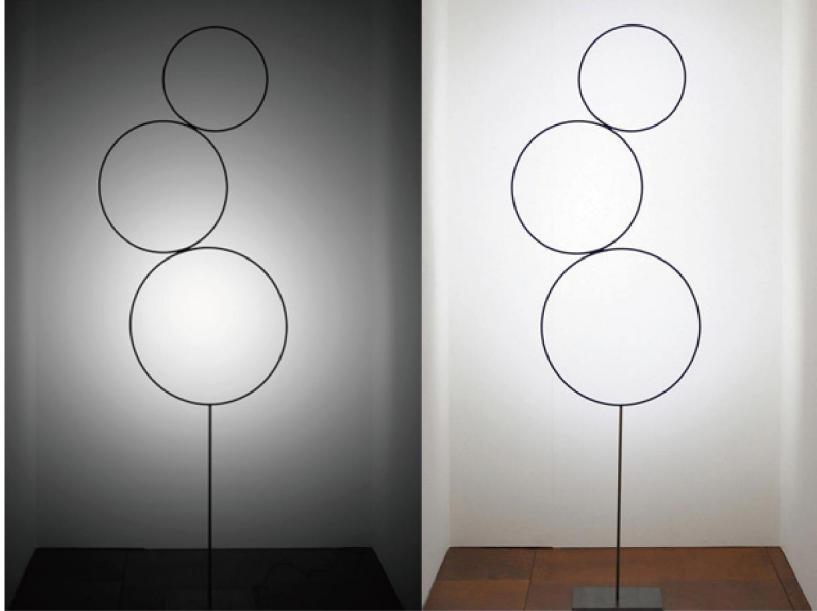
LED type:	LUMINUS
Luminous flux:	TRACKLIGHT 40: neutral white 3100 Lumen warm white 2800 Lumen
	TRACKLIGHT 40 PREMIUM: neutral white 2800 Lumen warm white 2500 Lumen



Colour temperature:	neutral white 4000 K warm white 3000 K
CRI:	TRACKLIGHT 40: 80 TRACKLIGHT 40 PREMIUM: 90
Beam angle:	18°, 25° and 35°



Catellani & Smith®

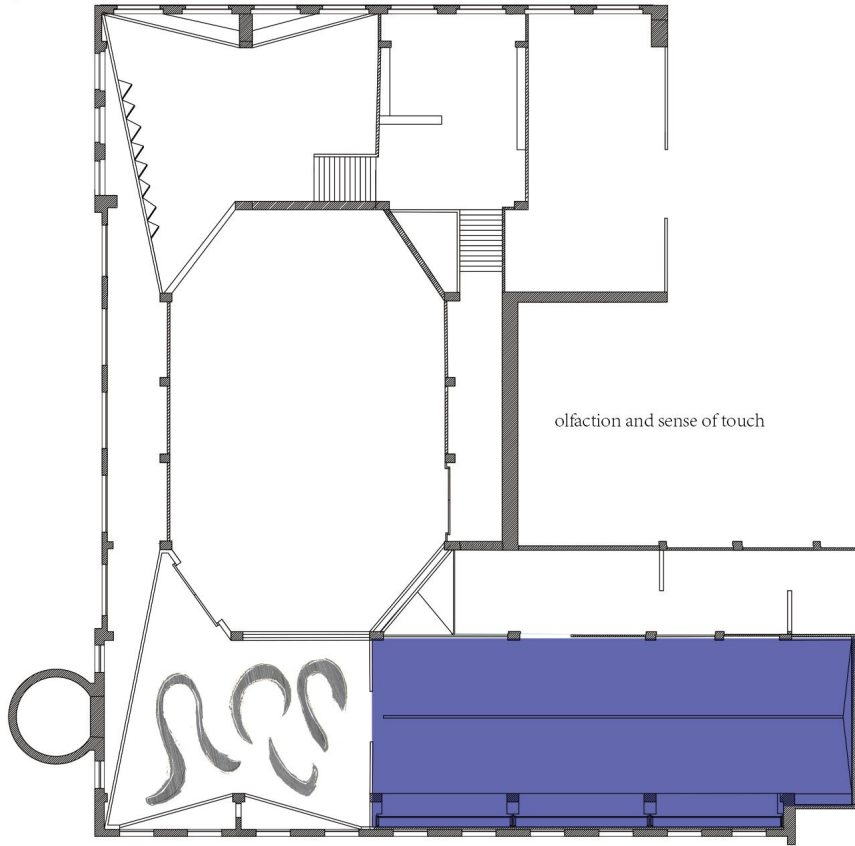


the brand for the sculpture of marbles

citco / florim

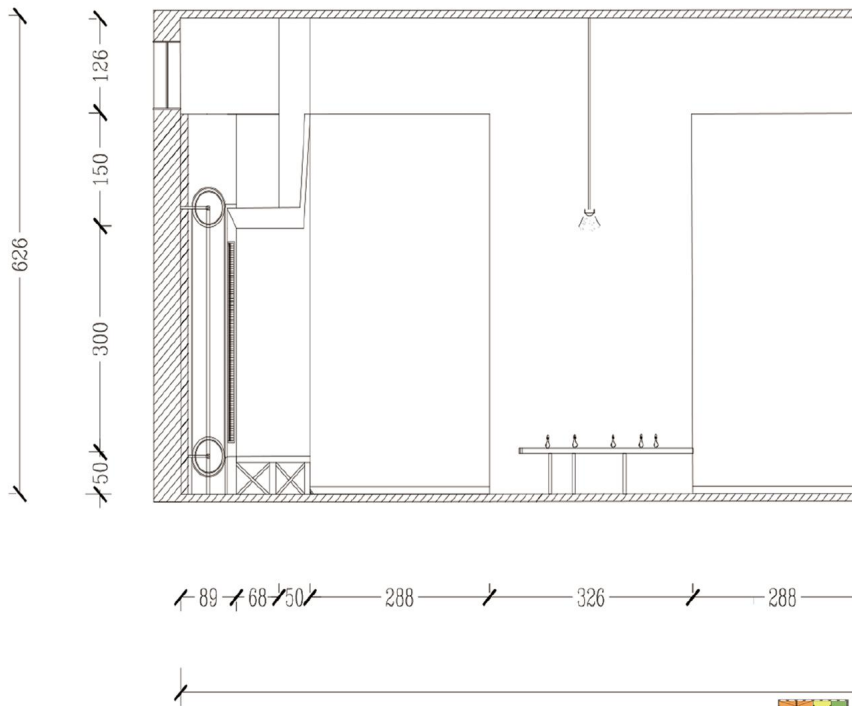


space2





In this space people can on a ledge three short rest or chat, the inside of the wall can be change the smell, people touch the wall with his nose can smell different. On the other wall have the small lights to explain the meaning of the smell on the wall, in this space, there is a big droplight, the ground has a narrow mirror, lights and mirrors in the dark space may be becomg a key to cut the different space, the light in the space form a curtain.



space2 devices detail





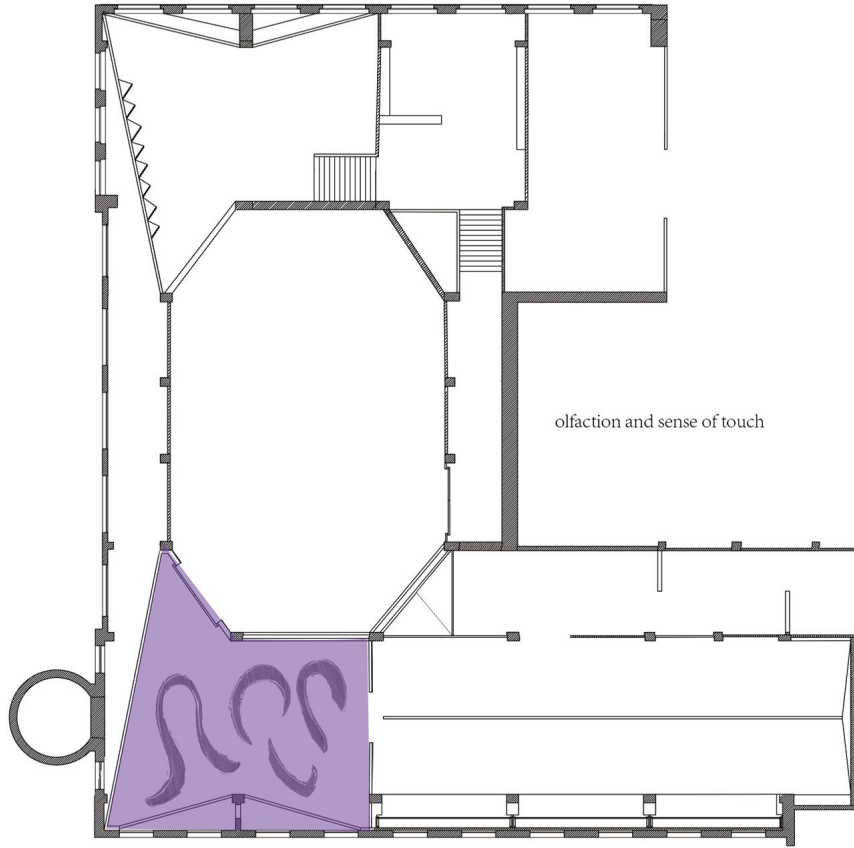
viabizzuno

Viabizzuno

ZHANG MENG

94

space3

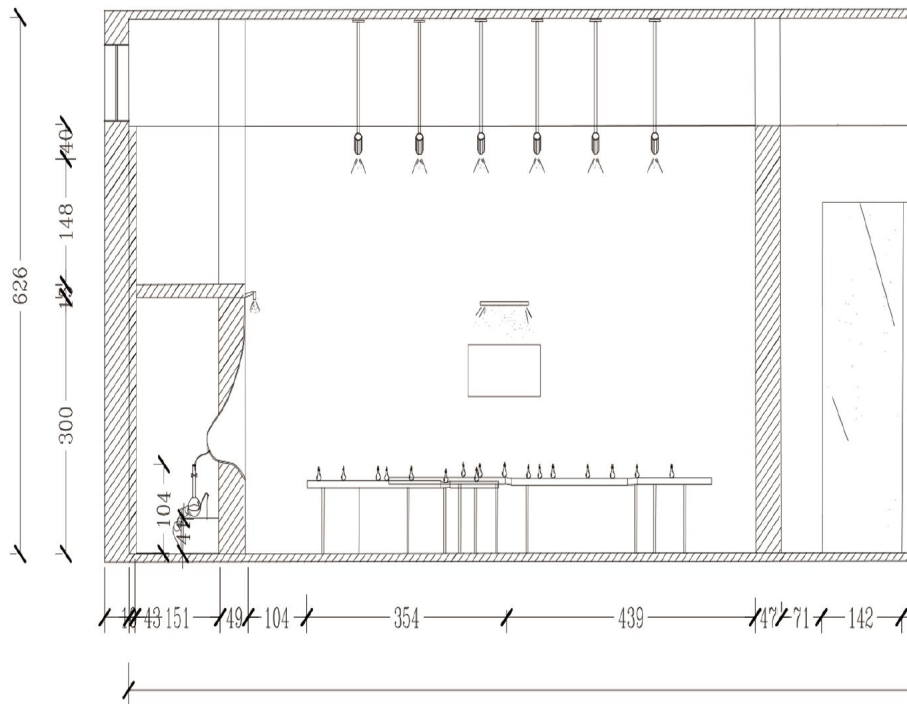


“dimples”

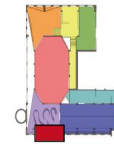


In this space , there are many bottles, filled with the smell of liquid, some of these smells the same, some differen, the reason is that this space is the theme of the youth, many problems like the smell of the bottle, choose different but the result. On t he wall, there are two device, shaped like two “dimples” , or the “navel” , they will release the different smells.

And the device technology uses the smell of the museum’s design principle.



space3 devices detail

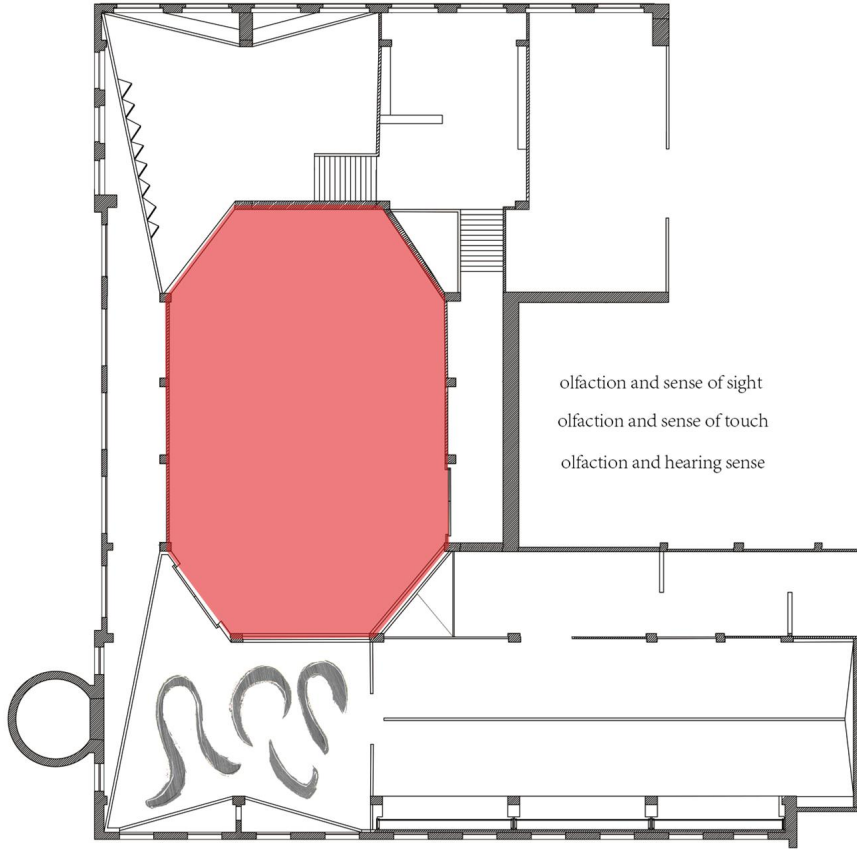


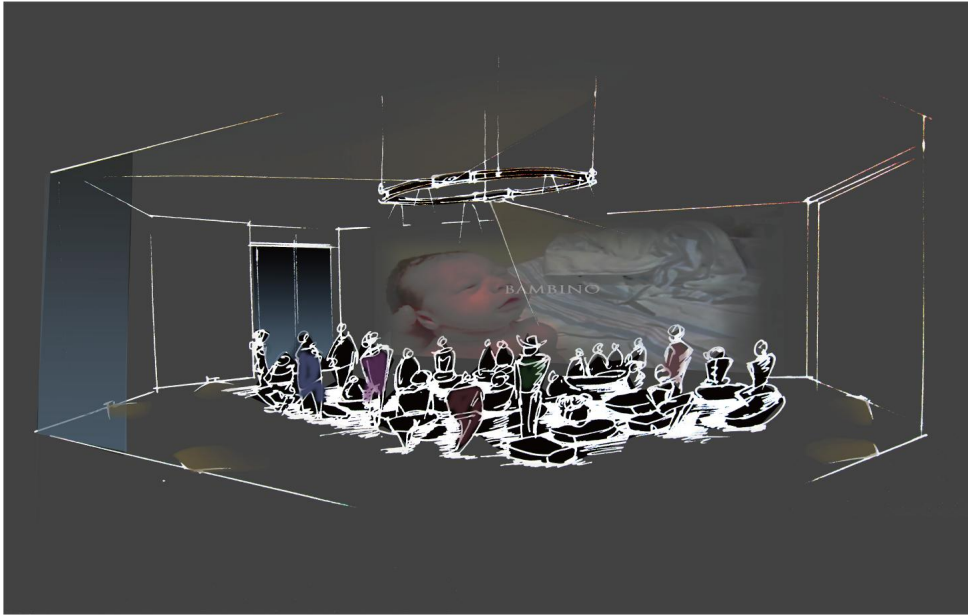


Art.	W	V	lumen	% led	A cm	B cm	C cm	D cm	E cm	
CRUZZORRE 50M	4,90	12	440	3000	8	50	8	4,5	12	Trasformatore incorporato/Built in transformer
CRUZZORRE 70M	7,95	12	600	3000	8	70	8	4,5	13	Trasformatore incorporato/Built in transformer
CRUZZORRE 90M	10,50	12	880	3000	8	90	8	4,5	13	Trasformatore separato/compresso/Remote transformer including
CRUZZORRE 110M	13,20	12	1100	3000	8	110	8	4,5	13	Trasformatore separato/compresso/Remote transformer including

ICONE Alimentatori a pag. 30/Power supply units on page 30
 Classificazione energetica: Energy class

space4





This space is the topic of "the birth of the first child". In the space of all the material is cotton, is gray carpet on the ground, surrounded by showing video and the voice of the child, and mother's lullaby. Have different smell in the air, people can relax in this space, at the same time thinking about our problems in life, in this space, all worries in life can replace with new life, because life is wonderful.

the texture



The carpet of the fourth space .

brand :
nube
biba
moroso
meco



The furniture of the fourth space .

Quantity: 30-35

Proiettori Hitachi CP-X2541WN



Dimensioni

Product Height: 8,5 cm

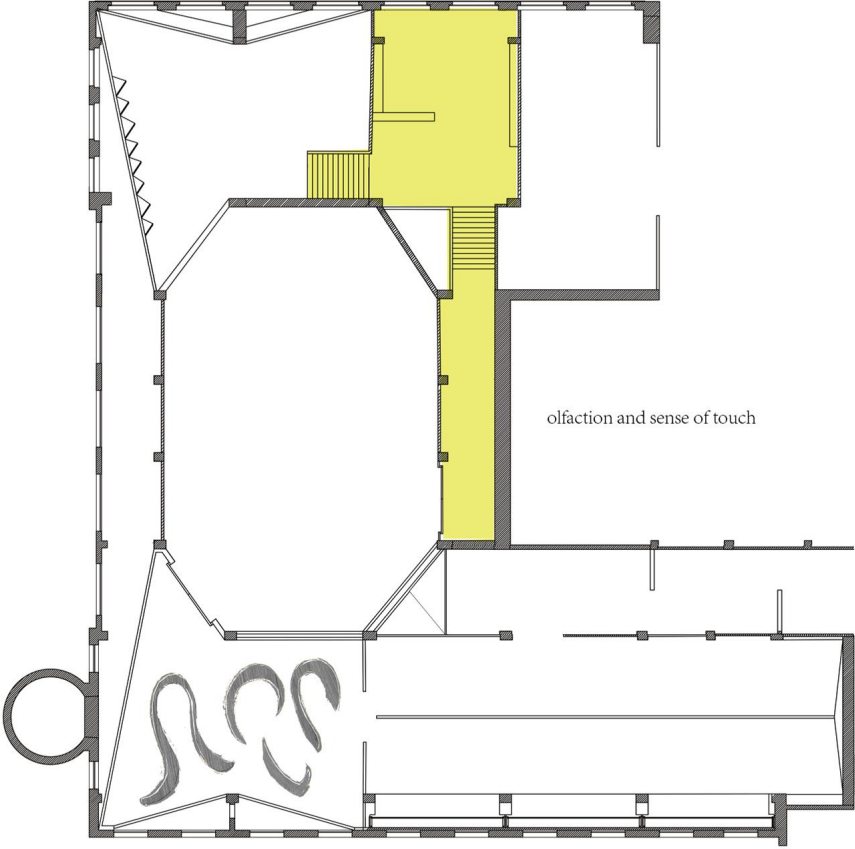
Largezza del prodotto: 32 cm

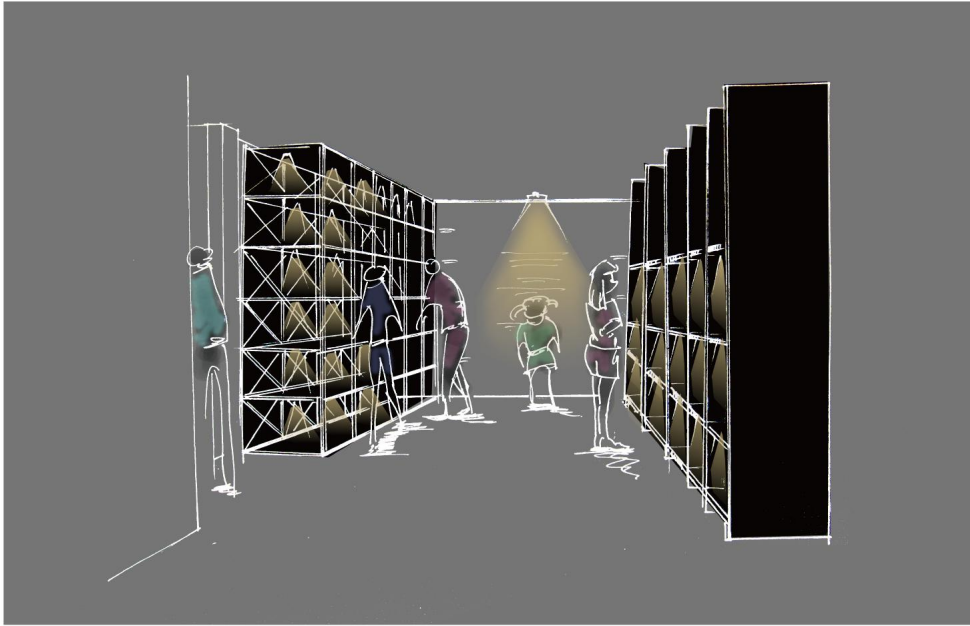
Product Depth: 24,5 cm



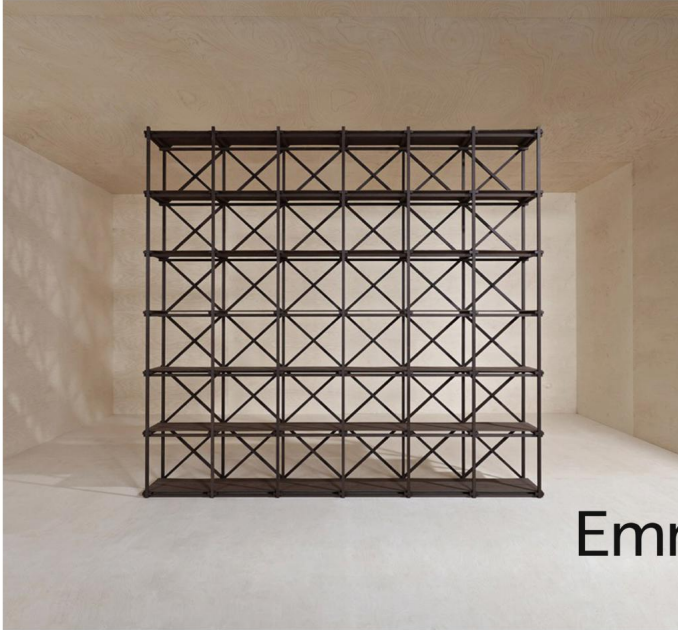
The projector of the fourth space, a total of four projectors.

space5





This is a two layers of space, in this space there are a lot of boxes with different "smell". They are solid, in this space, people can touch their leave the smell on the hand, this space is the theme of the middle age, at the same time, we have more ability to rein in life, we may see higher and further, we can see in the next room on the second floor, like, this time we can look forward to their own age.



Emmemobili

The furniture of the fifth space .

Height: 200 cm

Length: 220 cm

The grid size: 45 cm * 45 cm * 45 cm

Quantity: 2

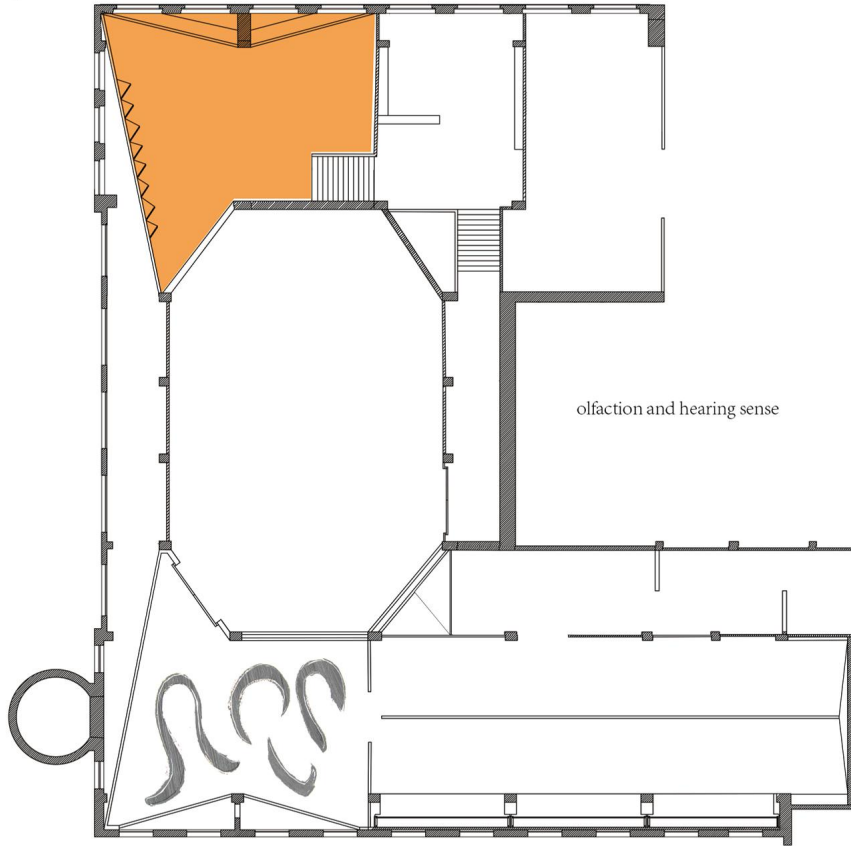


Art.	W	V	lumen	% led	A cm	B cm	C cm	D cm	E cm	
CRUZZORITE 50M	4,90	12	440	3000	8	50	8	4,5	12	Trasformatore incorporato/Built in transformer
CRUZZORITE 70M	7,95	12	600	3000	8	70	8	4,5	13	Trasformatore incorporato/Built in transformer
CRUZZORITE 90M	10,50	12	980	3000	8	90	8	4,5	13	Trasformatore separato/compresso/Remote transformer including
CRUZZORITE 110M	13,20	12	1100	3000	8	110	8	4,5	13	Trasformatore separato/compresso/Remote transformer including

Attenzione! e pag. 30/Power supply units on page 30
 Classificazione energetica: Energy class

Materie plastiche: PVC, ABS

space6



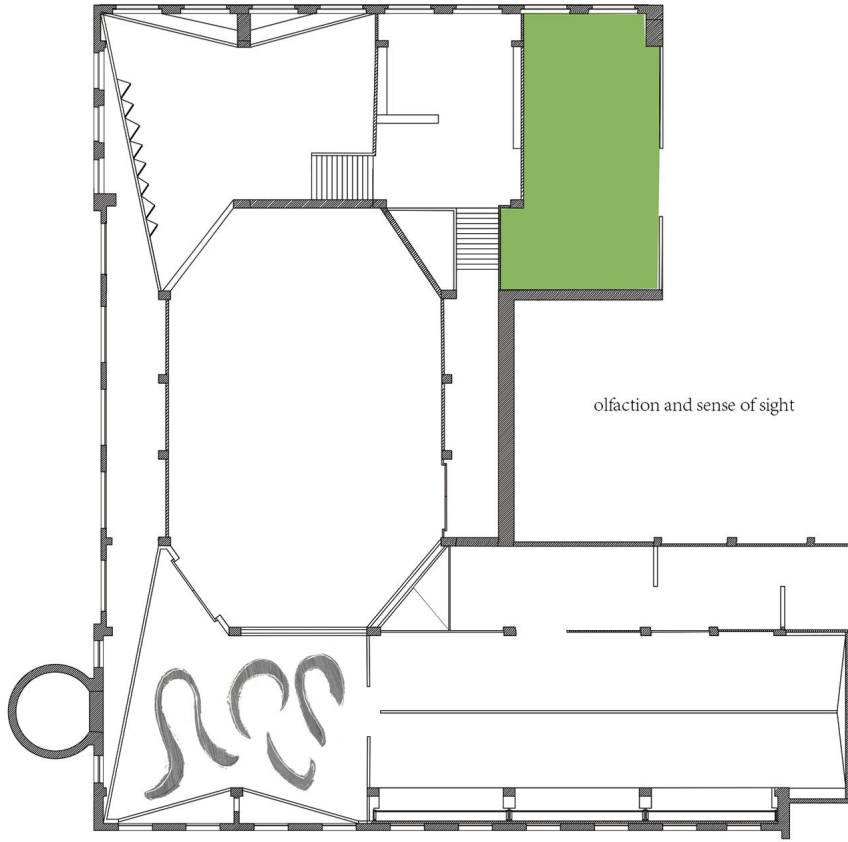


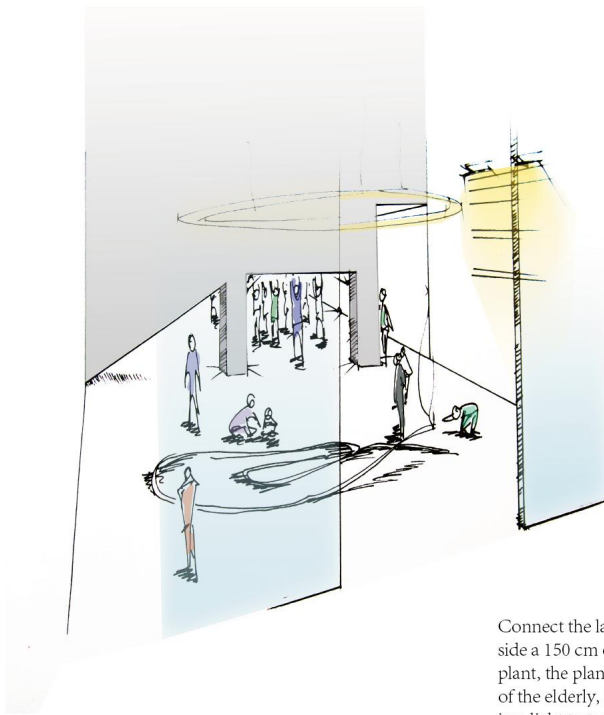
Walls in this space will hang a few bottles, they will release different taste, in the exhibition hall, there is a strong, acoustic sensor, it is people touch the sentence on the wall, the machine makes a noise, release and have a taste, this space is the space of hearing and smell, in this space, we can listen to stories, they are all our memories, is meeting with flavor.

voice-activated spray



space7





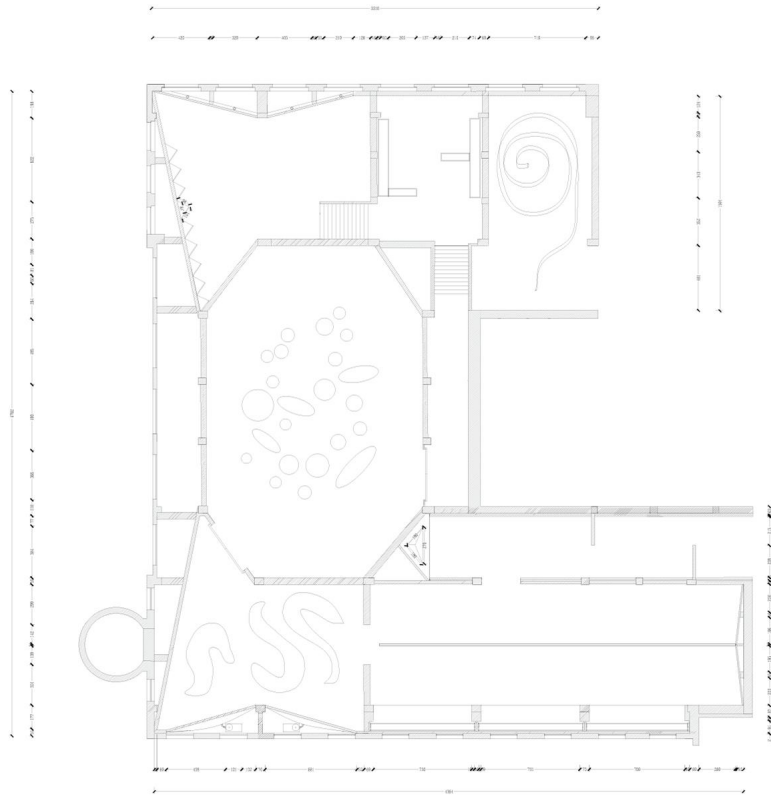
the incense

Connect the last space corridor ceiling height of 190 cm, alongside a 150 cm of the channel, is for children, people can touch it plant, the plant only touch the smell. The last space is the theme of the elderly, in this space there is a incense, it has been burning, light taste isn't there a name people couldn't guess the answer, the space is white and bright, but the end of the future, like the taste, no one knows the answer.

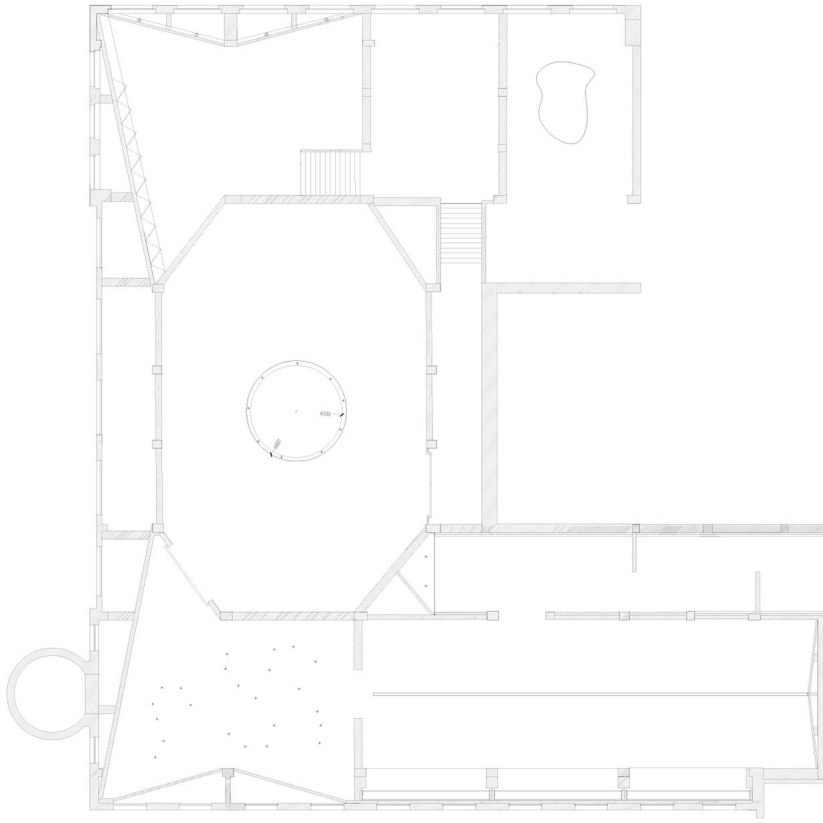


Art.	W	V	lumen	% led	A cm	B cm	C cm	D cm	E cm	
CRUZZORRE 50M	4,90	12	440	3000	8	50	8	4,5	12	Trasformatore incorporato/Built in transformer
CRUZZORRE 70M	7,95	12	600	3000	8	70	8	4,5	13	Trasformatore incorporato/Built in transformer
CRUZZORRE 90M	10,50	12	880	3000	8	90	8	4,5	13	Trasformatore separato/compresso/Remote transformer including
CRUZZORRE 110M	13,20	12	1100	3000	8	110	8	4,5	13	Trasformatore separato/compresso/Remote transformer including

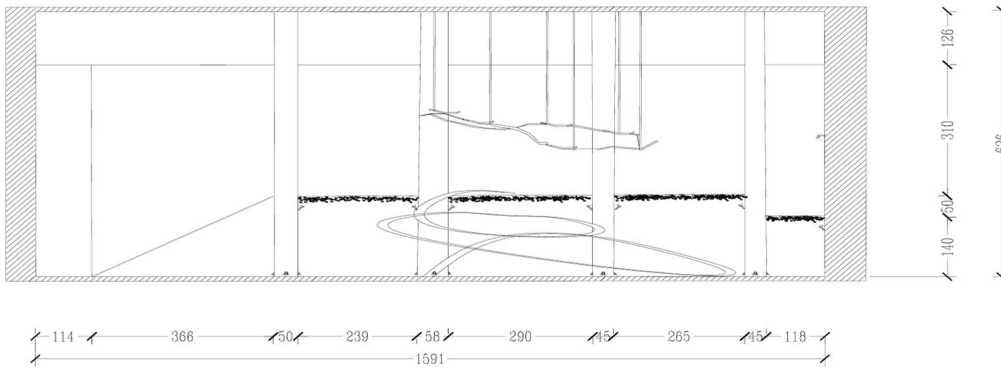
Attenzione! e pag. 30/Power supply units on page 30
 Classificazione: Energy class



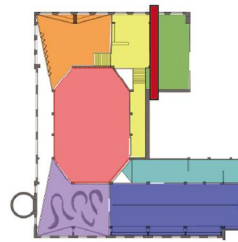
plan

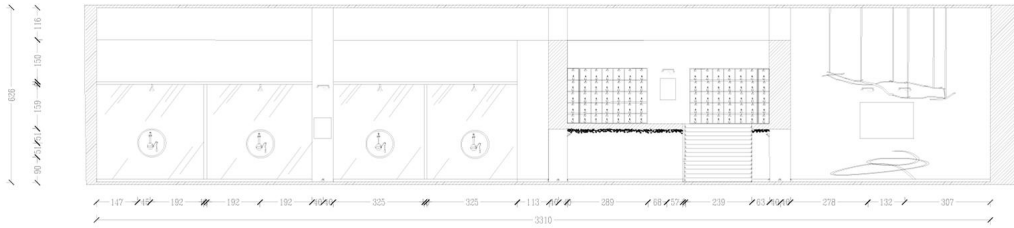


ceiling

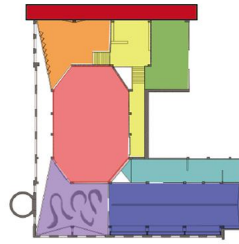


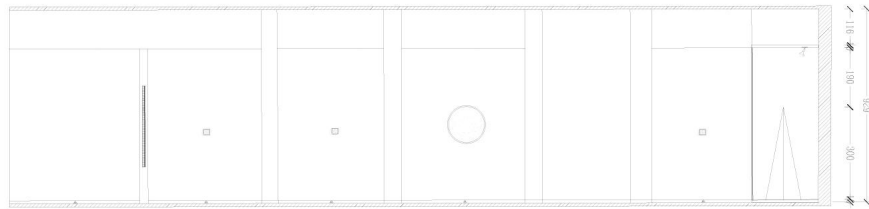
elevations



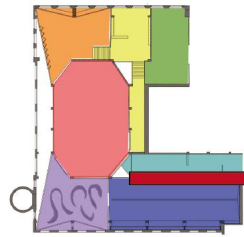


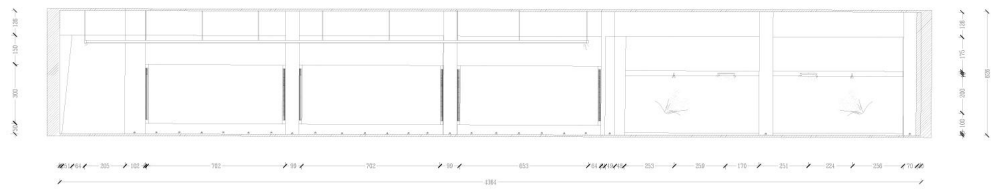
elevations



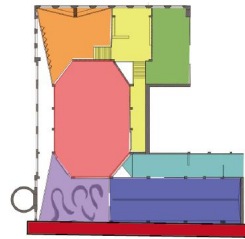


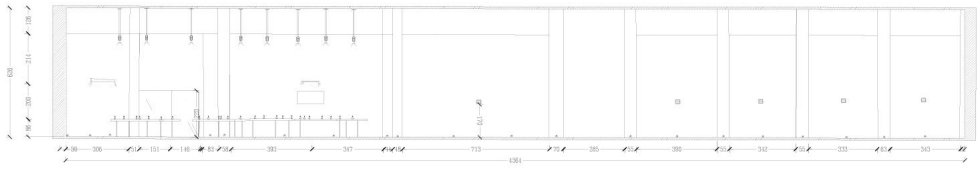
elevations



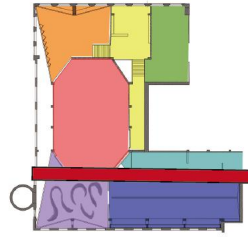


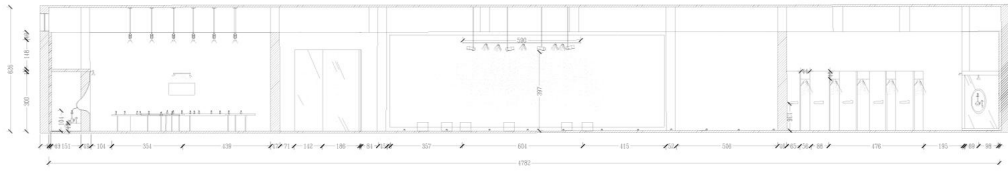
elevations



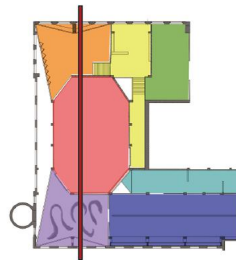


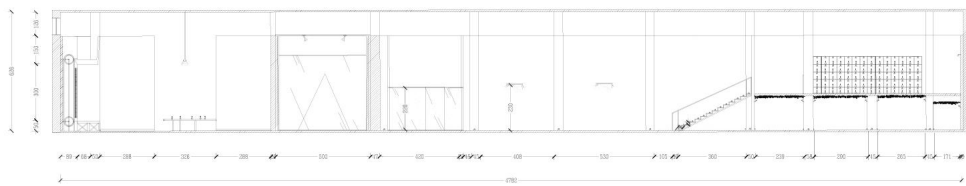
elevations





section



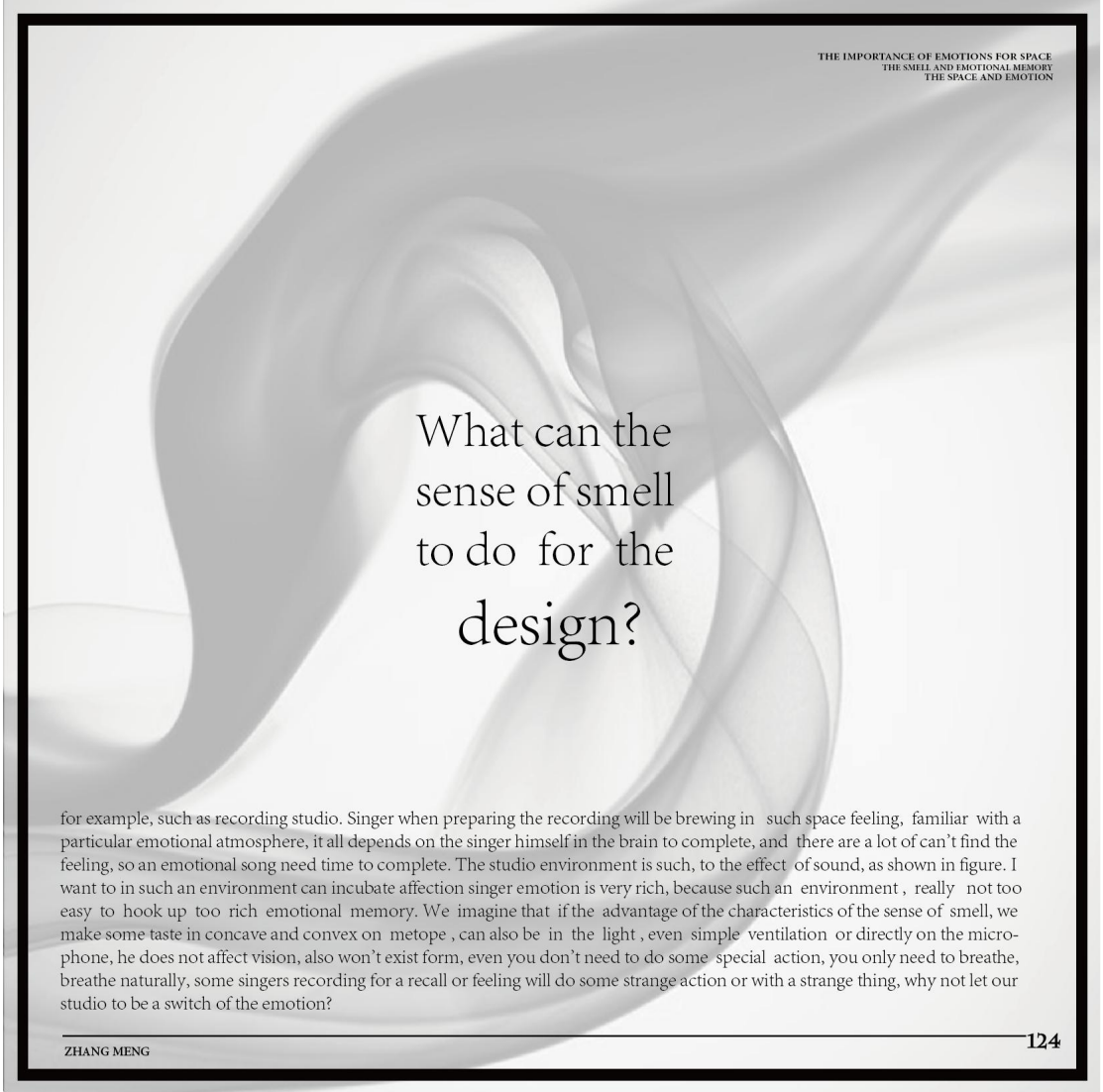


section



CHAPTER 5

1. THE IMPACT AND VALUE OF THE SENSE OF SMELL FOR THE DESIGN



What can the sense of smell to do for the design?

for example, such as recording studio. Singer when preparing the recording will be brewing in such space feeling, familiar with a particular emotional atmosphere, it all depends on the singer himself in the brain to complete, and there are a lot of can't find the feeling, so an emotional song need time to complete. The studio environment is such, to the effect of sound, as shown in figure. I want to in such an environment can incubate affection singer emotion is very rich, because such an environment, really not too easy to hook up too rich emotional memory. We imagine that if the advantage of the characteristics of the sense of smell, we make some taste in concave and convex on metope, can also be in the light, even simple ventilation or directly on the microphone, he does not affect vision, also won't exist form, even you don't need to do some special action, you only need to breathe, breathe naturally, some singers recording for a recall or feeling will do some strange action or with a strange thing, why not let our studio to be a switch of the emotion?





For example, some special populations, such as the blind, they can't see, they can fear in many places, imagine, for them to reach a how hard it is to want to go to the place, and they travel the number of times a lot less time than normal social contact, which means that they contact with the outside world is very difficult to communicate with others, it will affect their mental health and quality of life, if we have the taste as a tag, or in certain place in them through the blind road will have a unique taste, or when they arrived at a certain place in carrying on the cane based on GPS navigation to identify and peculiar smell, so they are not afraid I don't know where I, such a trip would not be a heavy heart, it would be like the building of the subway station, specifically for the blind only they "look" to the name, and he also won't let out of pure and fresh smell in the general population have hostility or discrimination to them, there may be gaps in such a design concept, but stylist is a powerful, their packaging for the brain will make our life more perfect and more comfortable.



“TAKE CARE OF YOUR MUM”

- John Gorst -

© Dave Young/Rex Features

new father waiting for his new baby and wife

There are a lot of people such as the department of obstetrics and gynecology, women in childbirth nervous worried about her family in the operating room, these groups of people have older parents, they are anxiously waiting if you have to let them relax or pleasant taste may reduce the health burden of tension and fear.





the smell of the foto

Or imagine the taste of pictures can be taken place at that time, such as the jungle or those rare sight can keep some good memories to more people, and if lovers to record such pictures, even if how far apart will remember the taste of each other.

These ideas, but the smell brings us part of the experience and effect, the designer to discover, summarize and contact, finally solve the problem they found about life , and even some emotional change can make life more wonderful.

These thinking about the sense of smell to help us find the feelings of people . In more and more humanized design trends, designers need to pay more attention to our house, our space. Designers not only to understand why need to use of five senses, but also to master the principle of the five senses.

If future design can understand everyone's heart so this design attempt , perhaps can let people understand our memories and past experience is better able to promote our positive emotions and states of mind. The designer need is how to let people find it.

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