

Positive psychology through Design: Seeking a solution to the Anxiety and Stress Epidemic

Jessica Arthur

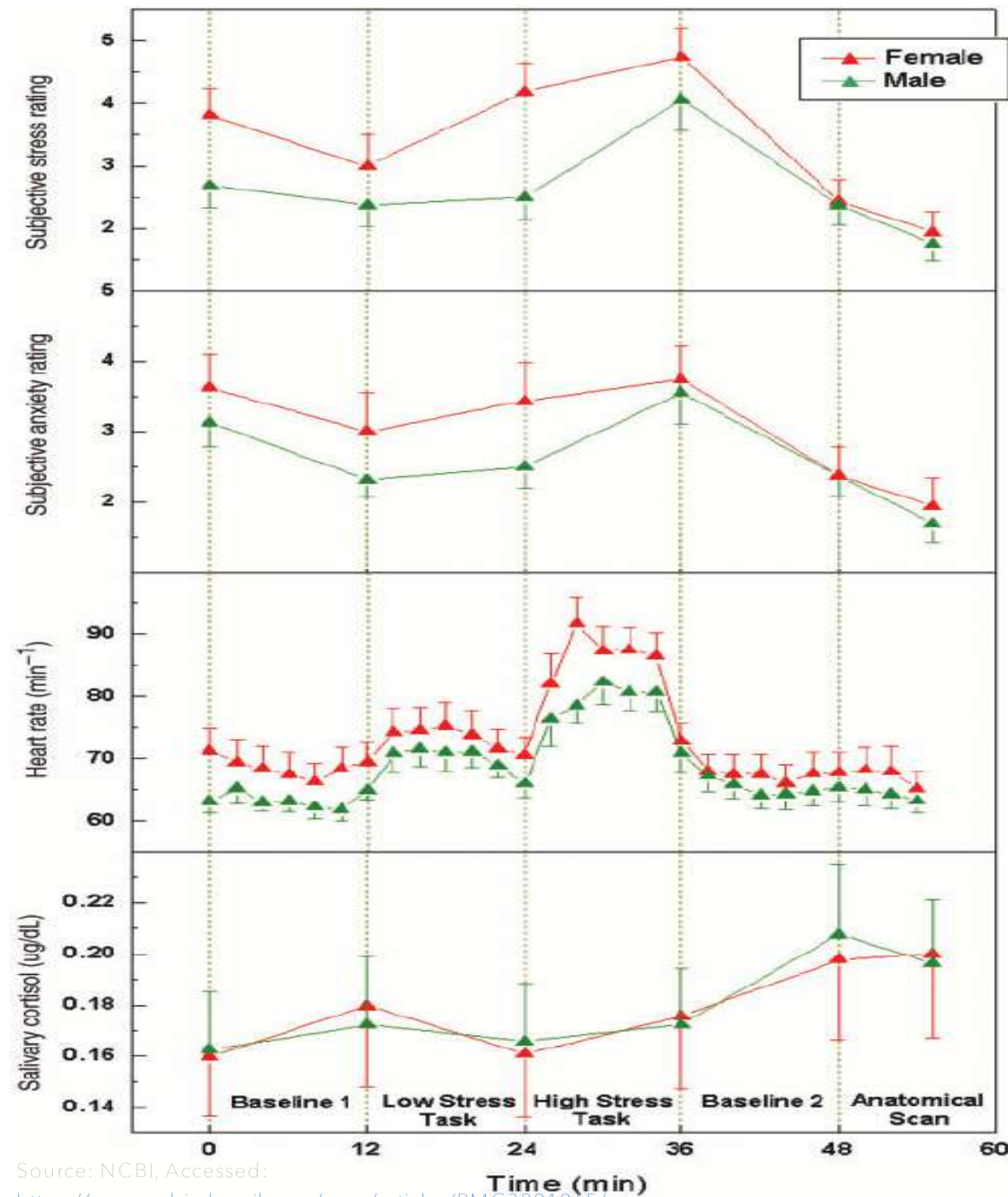
University of Brighton BA (Hons)

3D Design & Craft 2019

A Study on Generalized Anxiety Disorder (GAD)

Since the start of my study here at Brighton University, most of my work has been focused around Health and Lifestyle themes, particularly Veganism, Minimalism and Feng Shui, exploring how these the ideology behind each of them could help to improve the users quality of life. When brainstorming ideas for my 3rd year project, I decided I was most interested in pursuing study in Anxiety; a disorder I have been afflicted with since infancy.

Secondary Research



I began my studies by first getting to grips with Generalized Anxiety disorder, known as 'GAD'. While I was taking notes from a number of books, I was also scanning through the masses of research that had been published online, particularly studies carried out with groups of individuals both with and without an Anxiety diagnosis, examining their responses to pressure. These heart rate and brain scans help to clarify how the brain induces an anxious state and how our heart rate might trigger classic symptoms like, palpitations, breathlessness and perspiration.

Nick Verstand:

Audio-visual installation translates into beams of light

Verstand was able to combine the heart rate, brain waves and galvanic skin response to create this mesmerizing light display. He paired up with the scientists of the Netherlands Organization for Applied Scientific Research to create a device which would track the biological responses of the body triggered by an individual's thoughts and feelings at any given time, making each experience unique.

The concept of taking one's internal emotions and projecting them into physical space in this way was something that I found particularly inspiring. It is a display which has the power to induce similar feelings in all of its observers at one time, allowing them to be truly immersed in what that individual is feeling.

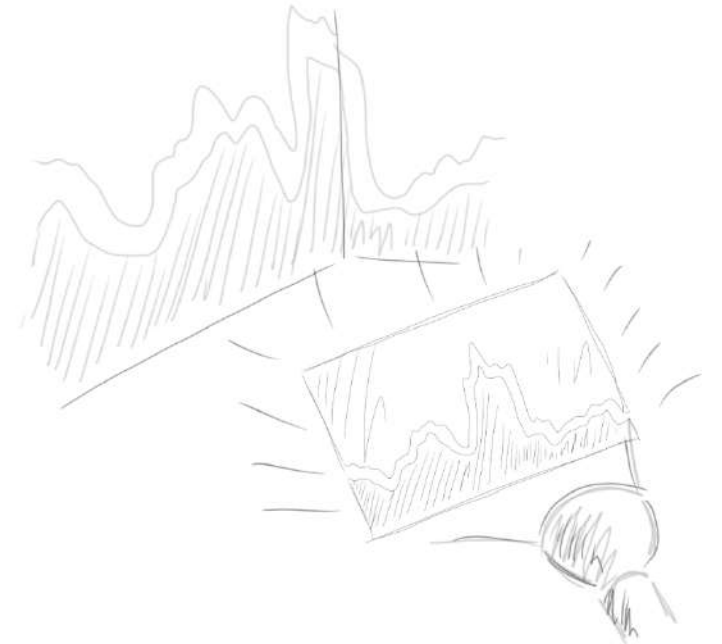
Photographer: Noortje Knulst, Accession
www.nickverstand.com



Anxiety Imagery:

Experimenting with light

In the earliest stages, I simply wanted to explore how I could bring out the imagery of Anxiety which I had found in my secondary research. I had Perspex and MDF laser cut in the forms of an anxious heartrate and brain, to see if perhaps I could somehow use light to project them into a space.



Primary Research:

Public Surveys

I soon realised I would need to carry out an investigation myself so that I could further tailor my research. I began posting questionnaires online and distributing question/answer posters around the university (particularly in the toilets, where people would feel comfortable enough to fill them out honestly).



Help me with my project...

What makes you anxious?

life
deadlines

Christmas
+ family!

societal
expectations

bills

living environment
and lack of money

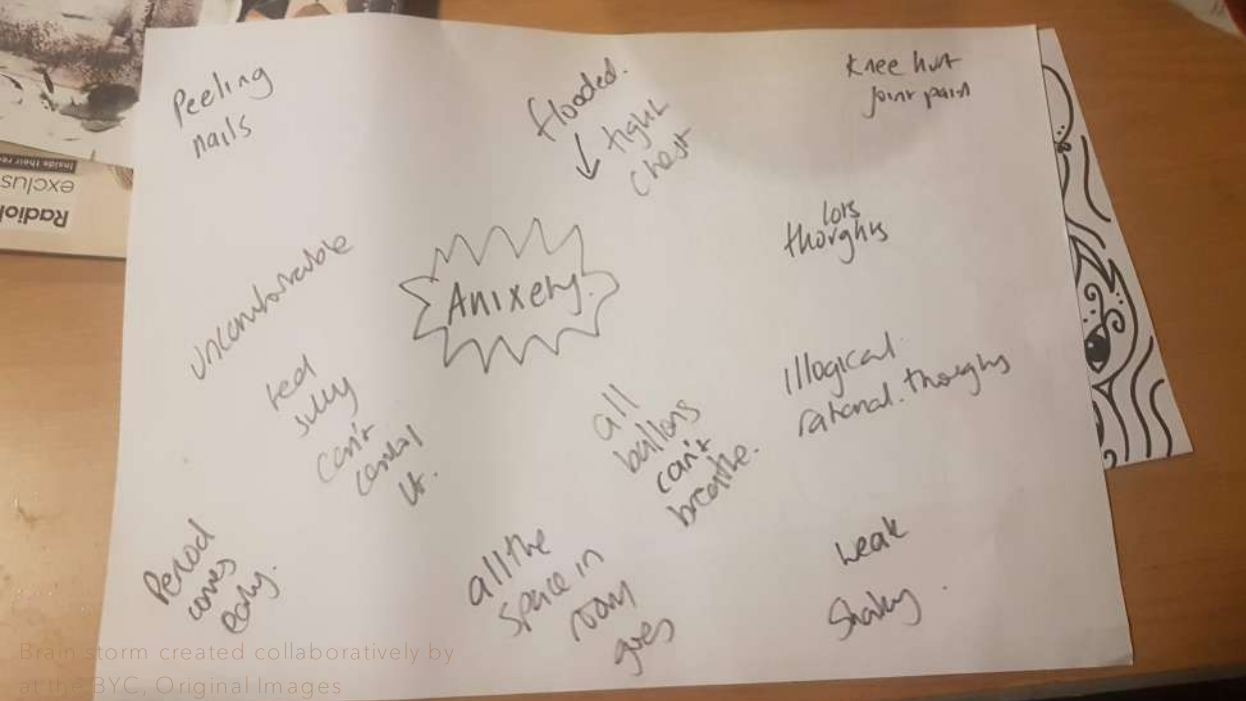
School

DEATH!

uncertain
future.



Posters put up across the university,
Original Image



BYC Volunteering:

Understanding the connections between anxious people

I also began attending the local youth center, particularly a group called 'Art in Mind' run by local councilor and Art Therapist, Samantha Taylor.

She allowed me to sit in on organized activities during these sessions while also discussing mental health and particularly anxiety related issues.

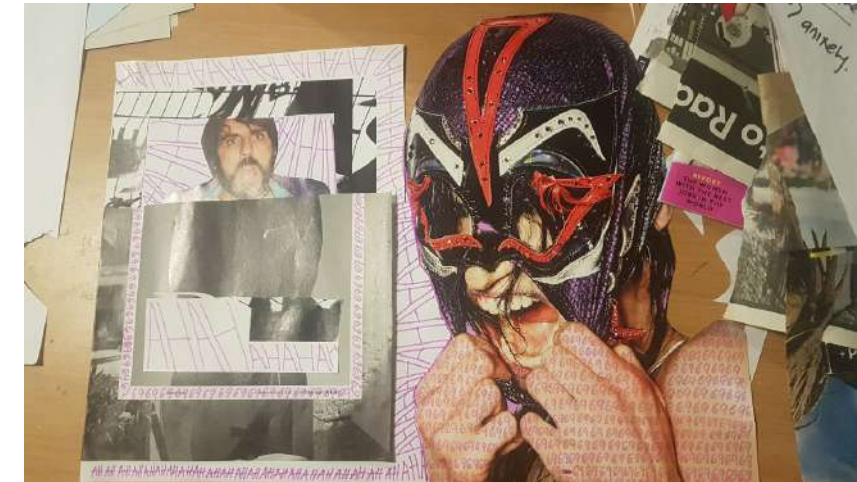
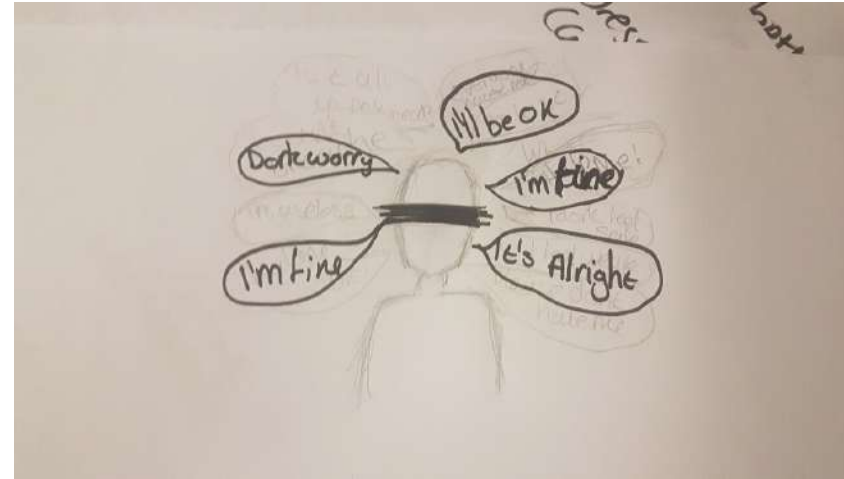
Consistently attending this group since August really helped me to better understand the disorder itself, while also coming to terms with how different individuals manage it on a daily basis.





Anxiety Imagery:

Art Therapy



While attending these sessions I observed that many of the individuals suffering with anxiety had a tendency to hide their struggles from close family members and friends, for varying reasons. However all of us had very similar ways of dealing with these struggles daily, particularly isolating ourselves, listening to music or having ambient sound in the background, having routines in place and having a particular space we can go to, set up to suit our specific needs.

Individual Anxiety Caricatures:

Art Therapy



Within these session, as an anxiety sufferer myself, I also engaged with the activities of the group and tried to visualize my anxiety

Calming the Mind

Ramon Telfer:

Pebble Shaped Calming Stone



When I began researching designers who had created products to help reduce anxiety I found that there were very few. However I did come across Ramon Telfer. Telfer designed a collection of pebble shaped calming stones to help individuals suffering with an anxious episode.

The form of these stones considers the most comfortable hand positions as well as the most visually soothing forms- no harsh or angular lines, bright colours or sharp edges.



Source: Benance,
<https://www.benance.net/gallery/45336963/Calmingstone-the-ultimate-calming-experience>

Developmental Drawing



My aim was to sculpt a clay using similar principles; comfortable to hold, with a relaxed hand position, neutral earth tones, smooth to the touch, audible and sensory capabilities.



Soothing Ergonomics

Soothing Forms



Calming the Mind: A Study on Anxiety Relief

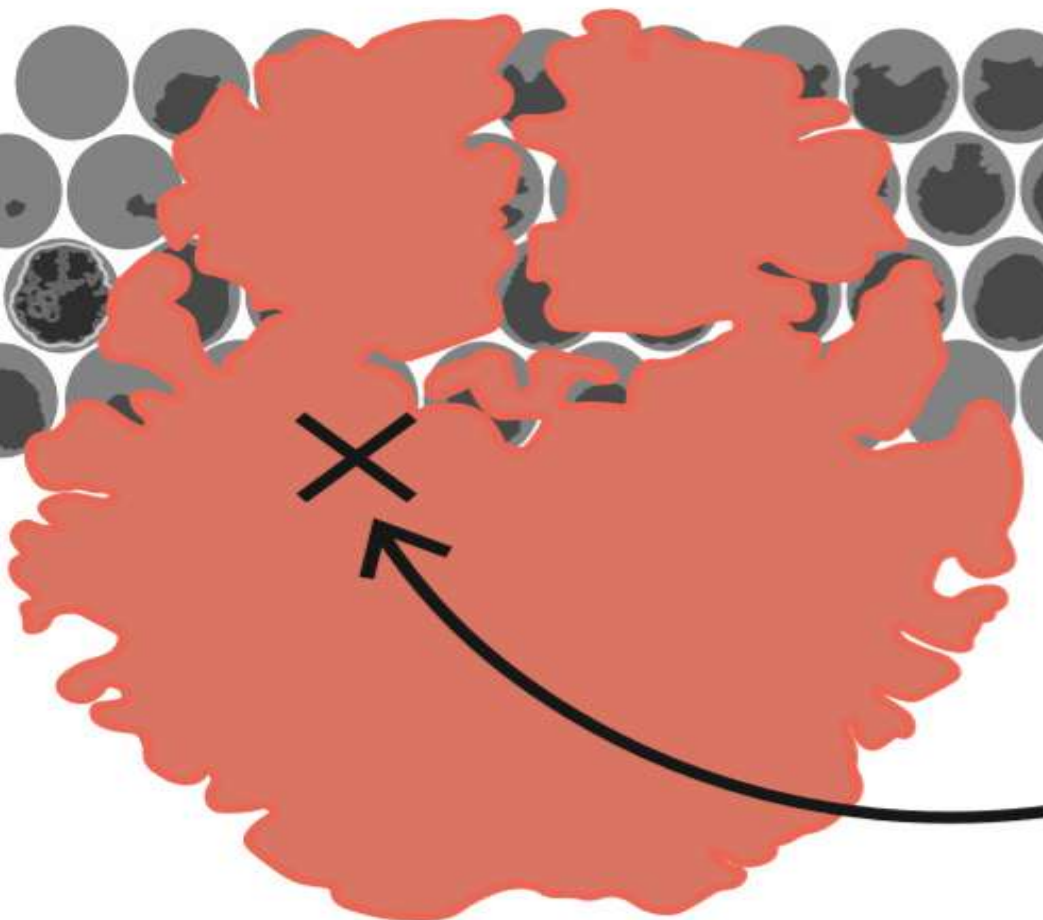
In the world we live in it seems that stress and anxiety are a common side-effect of our media-infiltrated environment. It is even believed that 85% of UK adults experience stress regularly. Feeling stress on such a regular basis is amongst the symptom associated with Anxiety, of which 8.2 million cases were diagnosed in 2013. I found these statistics fascinating and began to wonder why I had never come across any significant efforts (in the design world) to dissipate such feelings in our society.

INSPIRATION
RAMON TELFER: THE CALMING
STONE
FEATURES:
COOL AIR
SOFT VIBRATION
VOICE GUIDE
SOFT GLOW NIGHT LIGHT
PALM FORMED SHAPE



In this project I would like to explore the (little known) work of those who have successfully extracted methods of reducing the symptoms of anxiety through both psychology-based research and design practices. I would hope that in doing so I may be able to compile an insightful collection of research, as well as to provide a functional design concept using digital design. I have found through my studies that there is a psychology behind how design can become more integrated into the habitual nature of society, and I would like uncover specific methods of doing so.

I have started by simply looking at Anxiety itself: When looking at the Brain, it is known that Anxiety begins to emerge in **the Amygdala** (an almond-shaped structure deep in the brain)

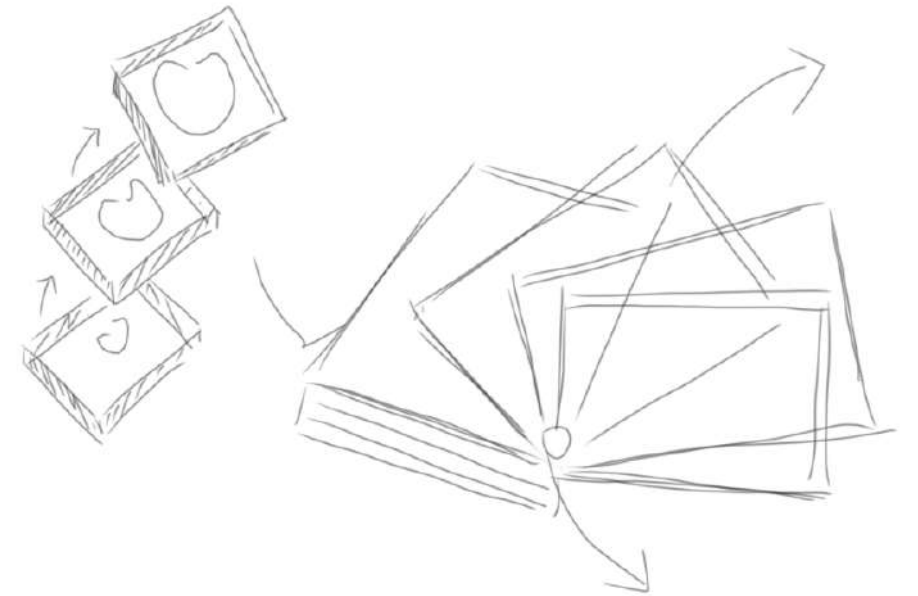


Proposal Exhibit:

Anxiety in the Brain



These objects are simply layered Perspex, engraved on the laser cutter and filled with ink—each containing a slice of the brain, reminiscent of those found in surgical brain scans.



What things make us calm?

Physical Stimuli

Meditation

Breathing exercises

Massage

Gentle stretching & yoga

Warmth

Cool breezes

Flickering candle light

Visual stimuli

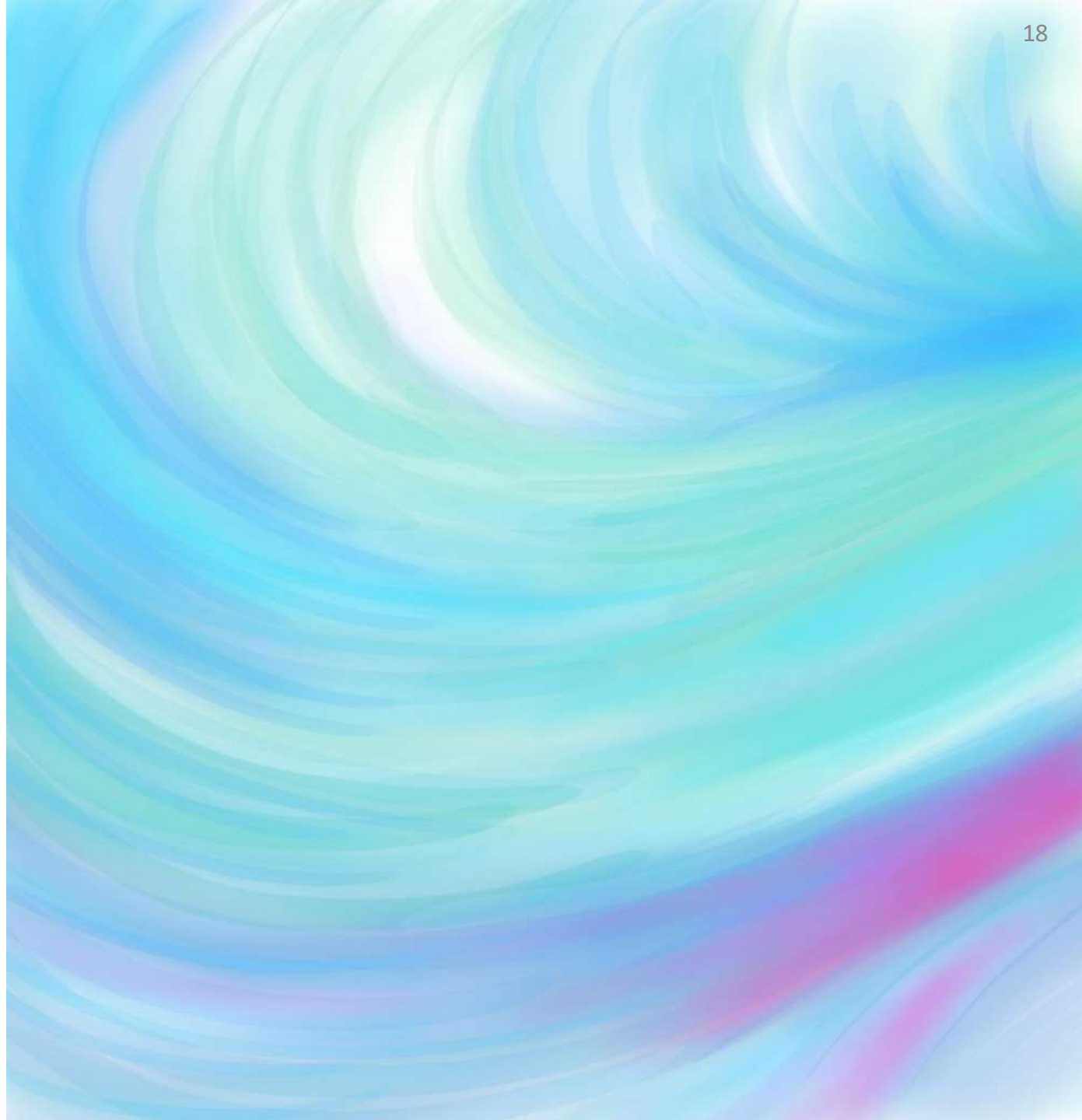
Sunlight

Slow moving clouds

Water Ripples

Soft earthy/pastel colours

Perpetual motion



Crystal Study:

In my search for techniques which have been used for relaxation, I came across various articles which explored the effects in which particular crystals and minerals can have on our mental health.

For instance, Clear Quartz is known to amplify and attract energy, whereas Rose Quartz is known to bring about compassion and peace.



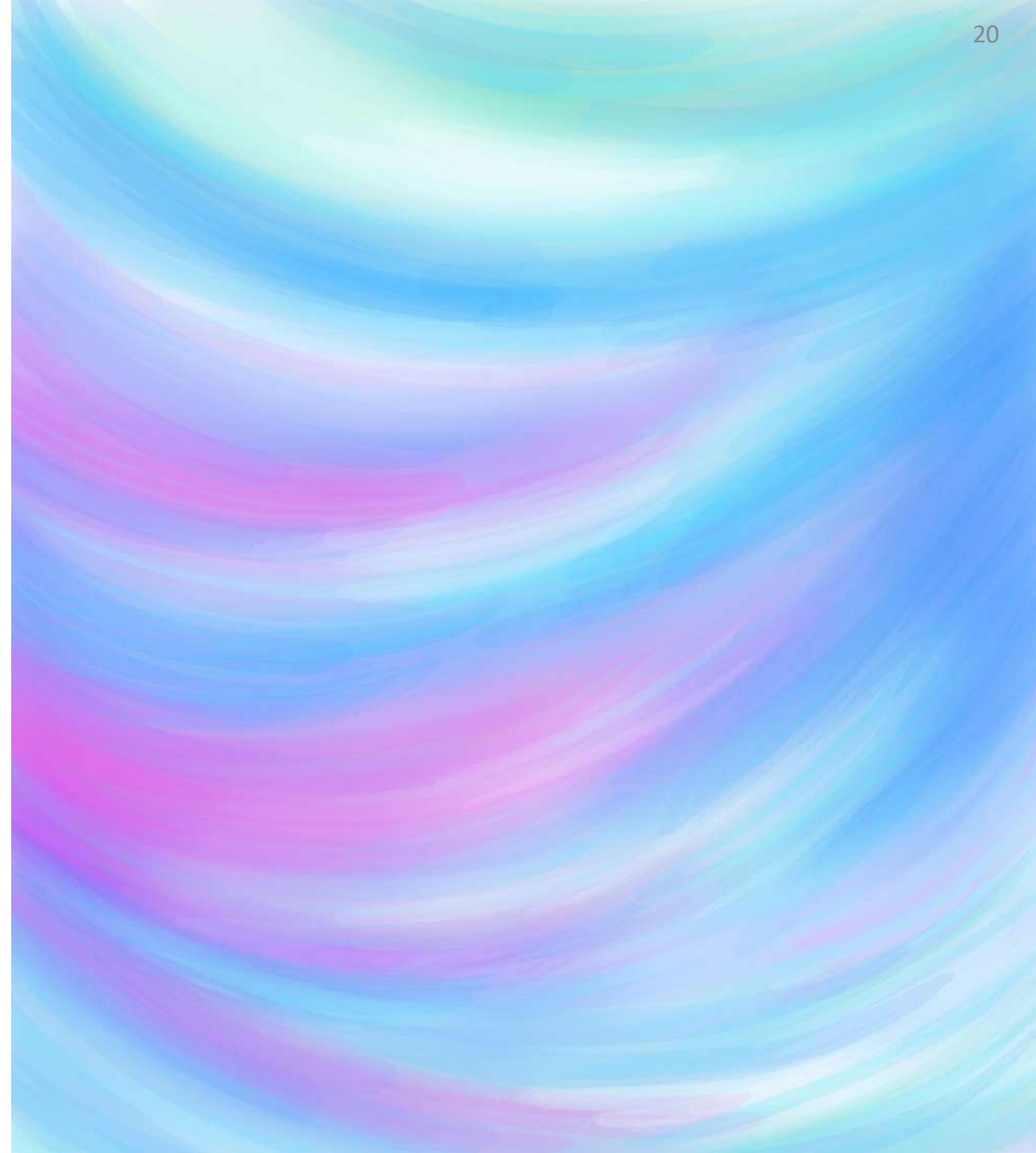
What makes me calm?

About midway through my investigation I realized the importance of my own views on the topic as a diagnosed GAD sufferer.

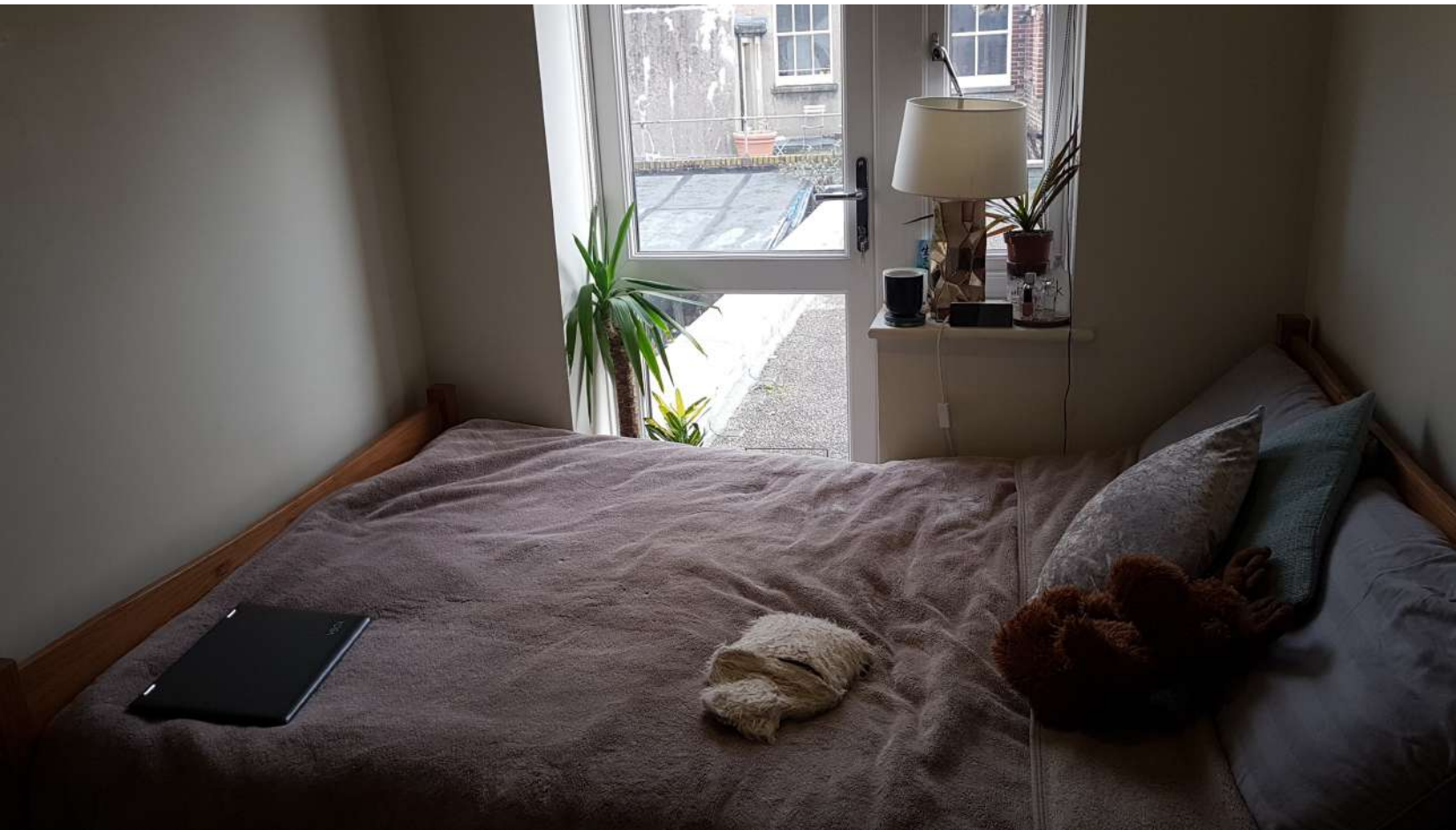
I reflected upon methods I had taken on to help relieve some of the tension I had built up throughout the day or during an anxious episode.

I realized that most of the time I resort to routine actions and places that I go in order, helping me to feel a sense of calm. Some of these routines include going into my bedroom and doing yoga, meditation and listening to classical music.

I set my space up with either natural light or soft ambient lighting, along with plenty of cushions and blankets to hold onto, or sit on for comfort.



My Calming Space



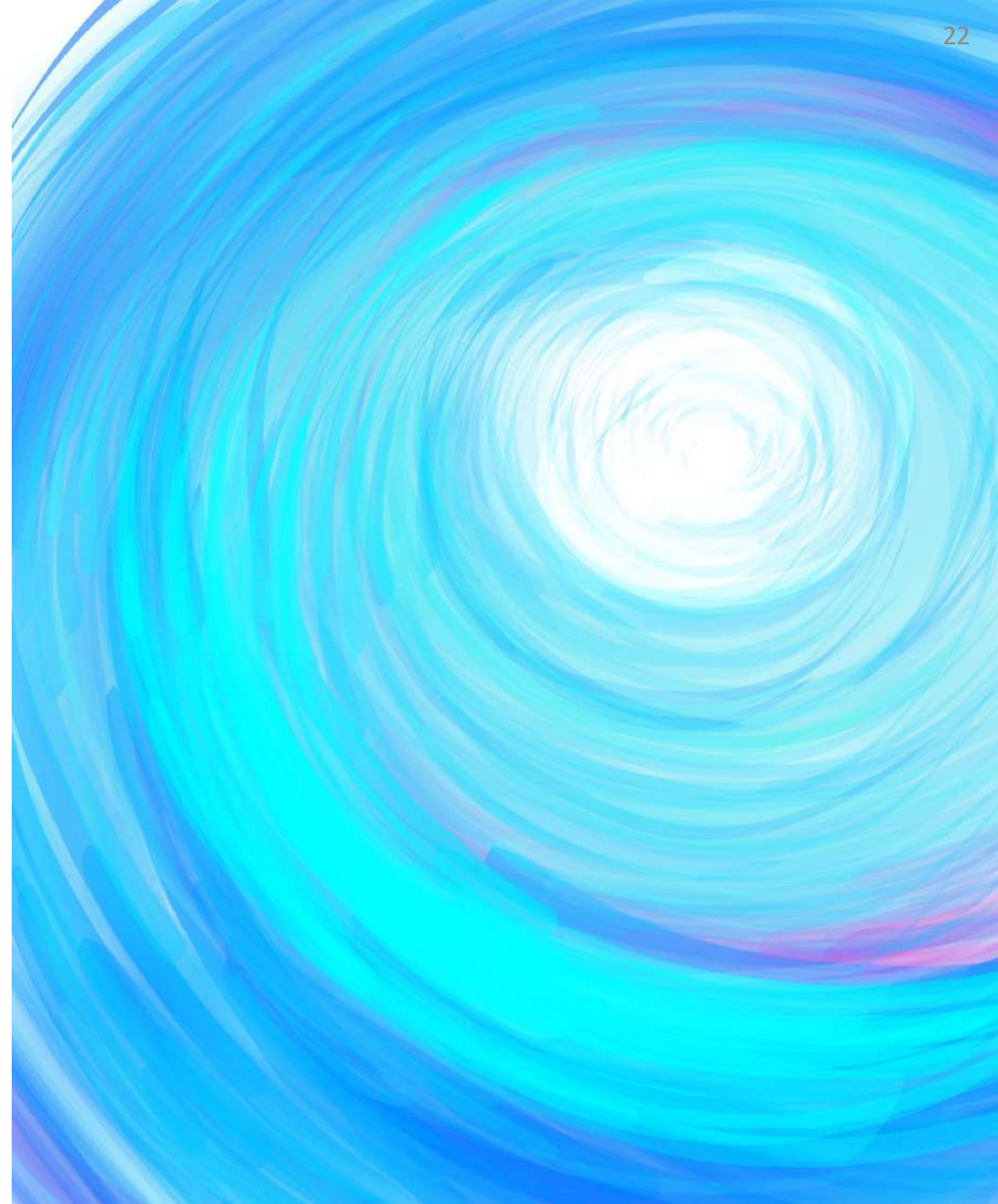
In my own space I make sure that everything is tidied away, to give it a more open and airy feel. I also keep my window open during day and have a variety of plants around the space to improve the air quality. The cushions, blankets and yoga mat make the space much more comfortable during meditation, sleep and exercising.

What makes them calm: BYC

Since I started volunteering at the Brighton Youth Centre I have kept a journal of my thoughts and conclusions at the end of each session.

In one particular session we each discussed what made each of us feel most calm. I was surprised to find that although each individual had a specific method they would use, they all seemed to fall similar categories;

- A safe space
- Sensory Stimuli
- Solitude





Yoga & Meditation

Optimal Calming Space

Based on Asian cultures, as well as my findings from attending the BYC I concluded that there are a number of key characteristics of a space which is optimal for reducing anxiety and increasing calmness; comfort, natural light, soft lighting, connection with nature, sheltered/safe space

Some of these attributes can be seen in traditional Buddhist temples and Japanese Architecture.

Circles in Asian Culture: Enso

Enso

When finally beginning to brainstorm a method of bringing together, I started to reflect upon some of the research I had come across in previous projects, I noticed the reoccurring symbolism represented in the circle.

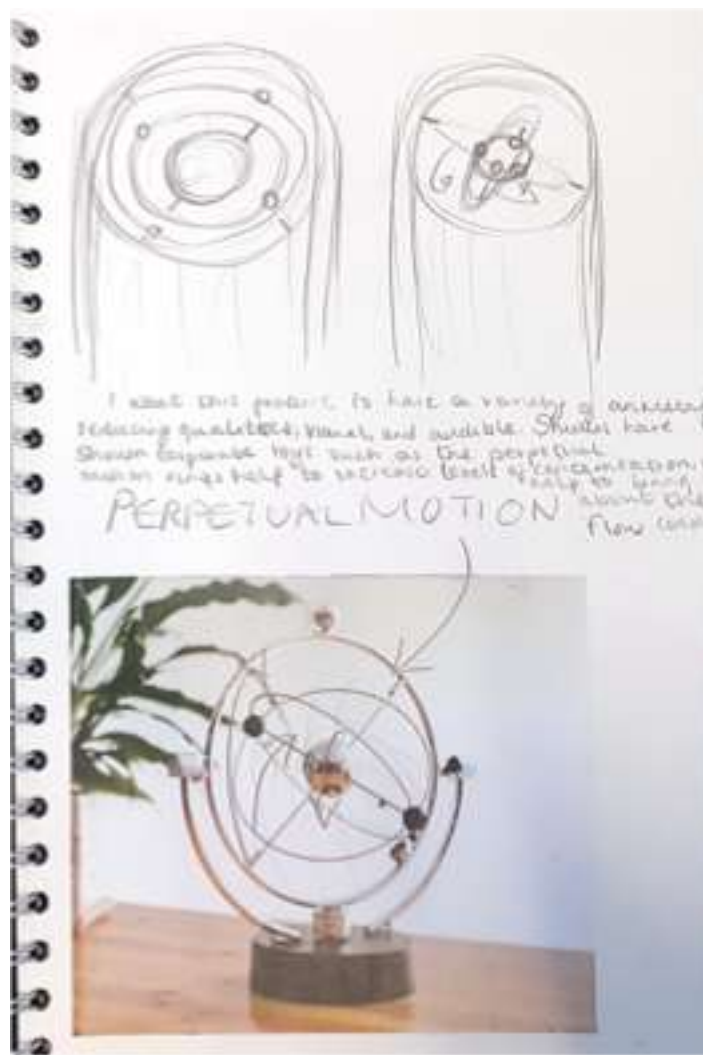
In Japanese culture, the circle is symbolic of an idea called Enso., which represents 'a moment when the mind is free to let the body create'. Translated as 'Circle of Togetherness'.

A concept reminiscent of what is achieved at Art in Mind; Opening up about mental health is a safe space allowing young people to create their best work and vice versa. The Art encourages calmness.



The Design Process

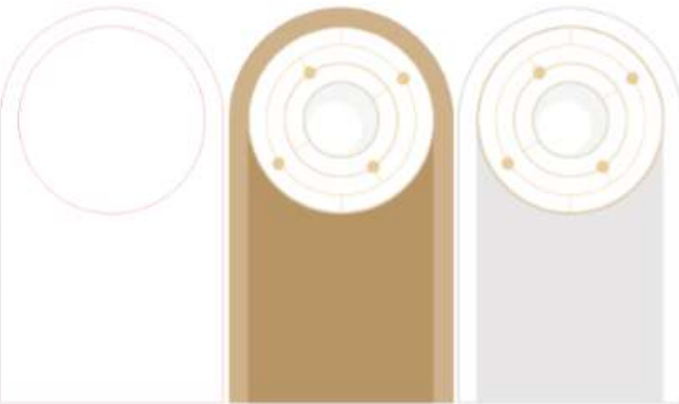
Sculptural Garden Piece



When coming up with my first design idea, I wanted to try to incorporate as many calming techniques that I could in one piece. This piece was designed to include a perpetual motion piece, which is known to increase concentration, as well as flowing water and magnified sunlight; both qualities which increase calmness.

MOLLIFIC MONUMENT

AFTER EXTENSIVE AND VARIED RESEARCH INTO THE ISSUE OF ANXIETY ITSELF, I DECIDED TO FOCUS ON CREATING AN OBJECT WHICH PROVIDES A CALMING SENSORY EXPERIENCE VISUALLY AND AUDIBALLY. I LOOKED BACK AT SOME OF MY PREVIOUS WORK AND CONCLUDED THAT WATER AND LIGHT SHOULD BE A FEATURE OF THE PIECE.



LASER CUTS



PIXABAY, ZEN GARDEN



GEMSTONE BEADS



CEDAR WAGNETTE

MATERIALS

- SILVER/GUILDING/GEMSTONE BEADS
- CEDAR WOOD
- CASTING RESIN
- GUILDING/SILVER ROD

FEATURES:

- PERPETUAL MOTION METAL RINGS
- GEMSTONES
- LIGHT REFRACTING ORB
- FLOWING WATER
- CEDAR WOOD

ENVIRONMENT

THIS WATER MONUMENT WILL CREATE A MOLLIFYING EFFECT ON INDIVIDUALS WITHIN ITS PROXIMITY.

IT IS DESIGNED FOR A LANDSCAPED OUTDOORS ENVIRONMENT SUCH AS A ZEN GARDEN



PERPETUAL MOTION

THE PERPETUAL MOTION FEATURE, WAS INCLUDED BASED ON THE IDEA THAT THE FUID MOTION HELPS THE VIEWER TO CONCERNTRATE OR ACHIEVE A STATE OF 'FLOW', WHICH IN TURN HELPS TO REDUCE ANXIETY.

Change of Direction

After the group crit, I reflected that the design I had come up with was not considered enough; it was important that the design was wholly informed by my research.

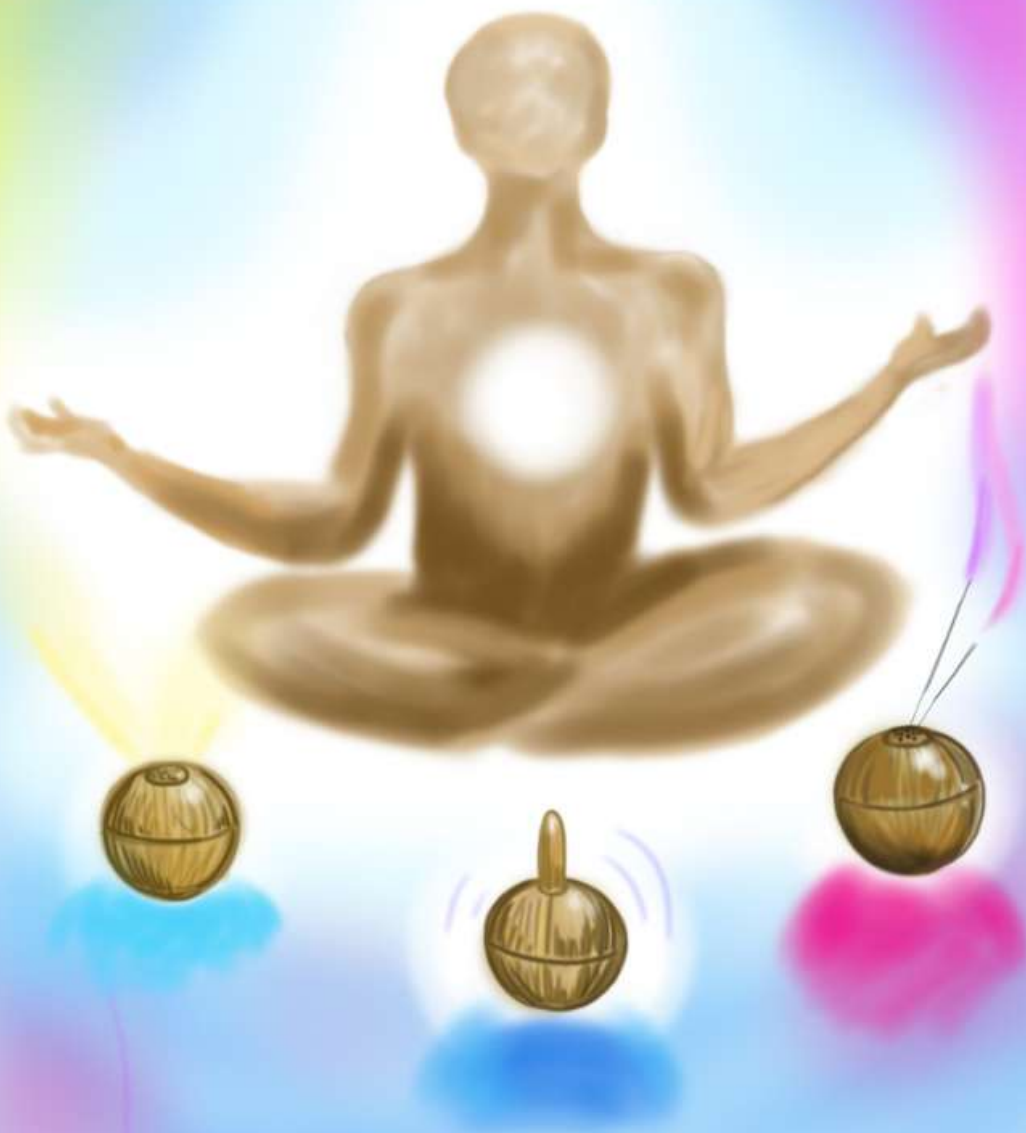
I realized quickly that I may have rushed into the design process too fast and due to the nature of my project it was essential that meaning and particularly the information I was collecting from the BYC was embedded into the design.

I decided to continue going to the BYC and to begin attending a Yoga & Meditation class for some further inspiration.

Meditation

Throughout my Anxiety based studies, Meditation came up several times as an effective practise for reliving Anxiety related symptoms. It is also a practise that I have looked at in some depth in my prior studies, being that it is a personal interest of mine.

In my own meditation practise I have found that my mind has become much more clear, I can maintain focus for longer periods, my body feels balanced and my muscles relax.



History of Meditation in Asian Culture

Meditation is a practise which is known to have been around since around 1500 BCE, specially within eastern cultures including Indian Buddhism and Chinese Taoism.

It is a practise which is considered to be incredibly spiritual and allows its participants to feel a closer connection to a higher entity.

Meditation became a practise which would allow individuals to practise discipline and self-awareness and it is only in recent years that scientists have discovered its mental health benefits.



Photographer: Rodolfo Clix, Accessed:
<https://www.pexels.com/photo/blue-buddha-ceramic-head-figurine-1597017/>

Objects For Meditation

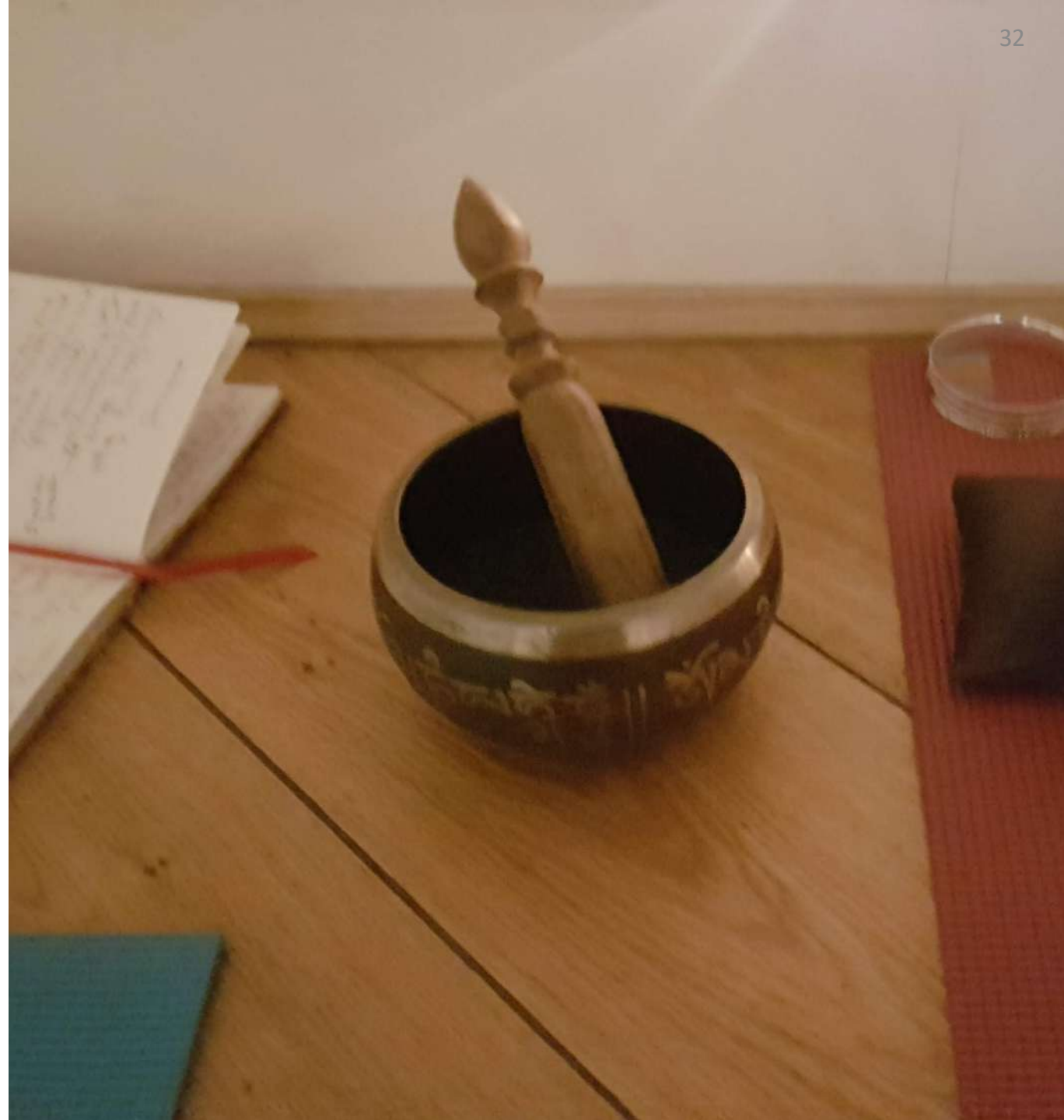
When I began attending my local Hatha Yoga and Meditation class, I asked my instructor Stephanie, what tools she thought best accommodate meditation she showed me a number of items around the studio including;

Bolsters & Cushions- To increase comfort while sitting for long periods.

Singing Bowl & Mallet- Known to increase focus during meditation and to purify the environment.

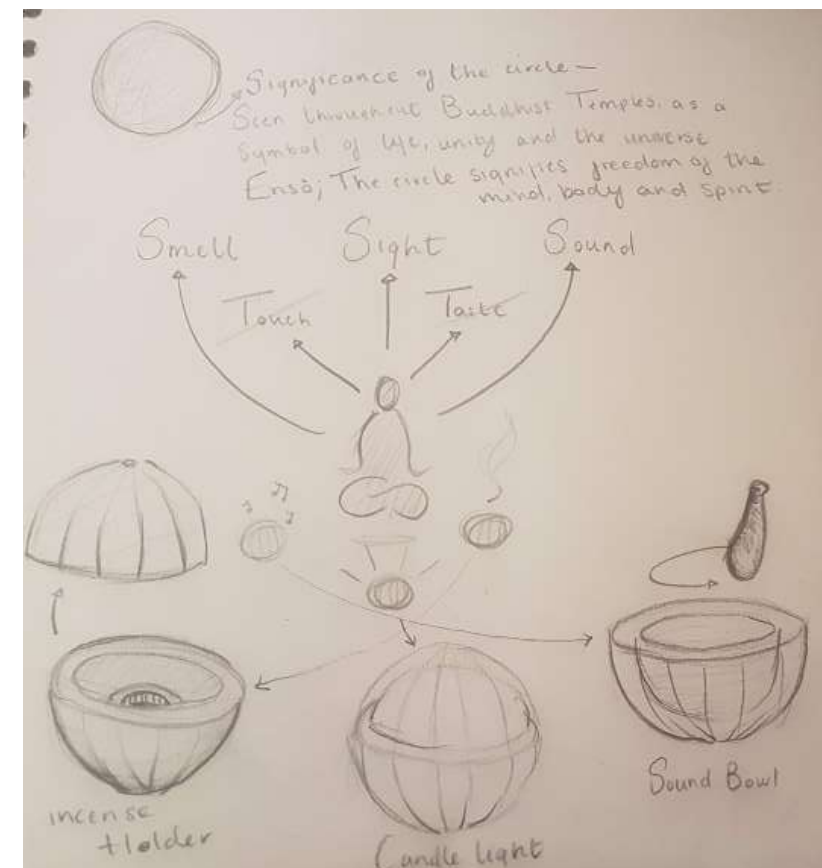
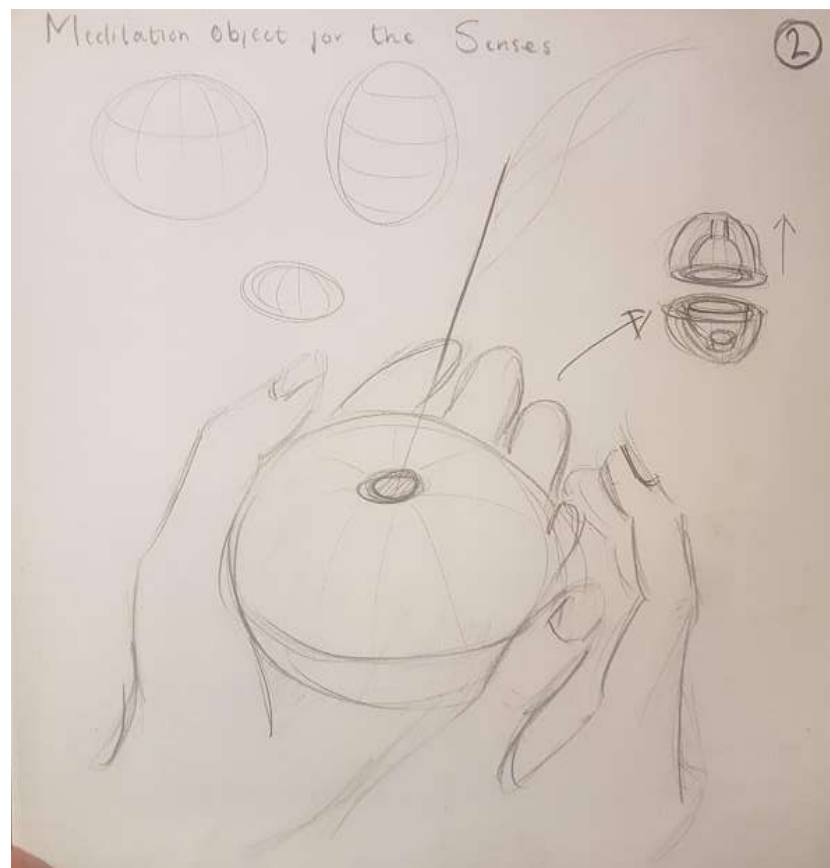
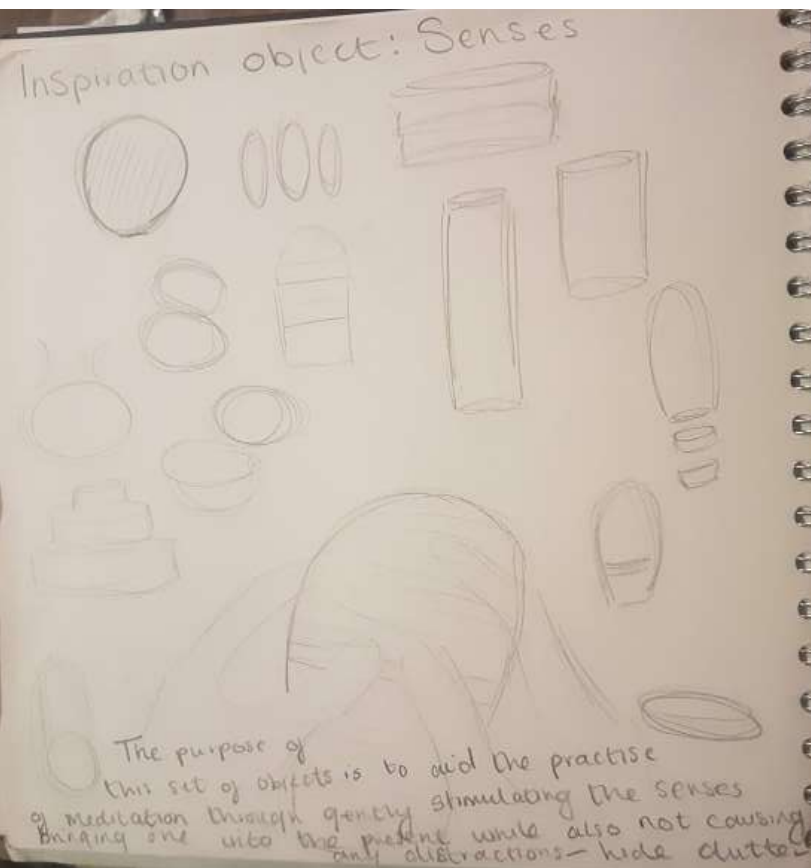
Incense- Creates a soothing environment and accommodates deep breathing.

Candles- Also helps to add to the calming atmosphere



Experimenting with form:

Sketchbook Drawings



Polymer Idea: Rhino Render



When I first started planning how I would manufacture a perfect spherical piece I didn't believe I would be able to make it in solid wood or at least without a mould; Therefore I decided I would approach making it in plastics with a wood and resin mix.

This is a CAD render I created, which I planned to 3D print and cast in a Jesmonite mould.

Samples: Wood and Plastic Combining

When it came to the type of wood I would mix with the resin, I made samples using chestnut and oak shavings as well as wood ash. I was concerned with the translucency of the wood and resin composite material therefore I experimented with mixing in other materials including, sand, Portland stone and limestone granules.

Original Images



Polymer Process: 3D Printing and Mould Making

Original Images



Change in Direction: From Polymers to Wood

While reflecting on the meaning imbedded in wood and the historic value of wood within Asian Culture, particularly Buddhist practises, I realized how essential this was to the value of my outcomes. By using a polymer and wood shaving composite, rather than solid wood, an authenticity in the material was lost. The solid wood is not only more in keeping with my early research, but also ensures every element of my objects are sensitive and deeply meaningful- which is essential for any project of a sensitive nature.

First Meditation Object: Scent

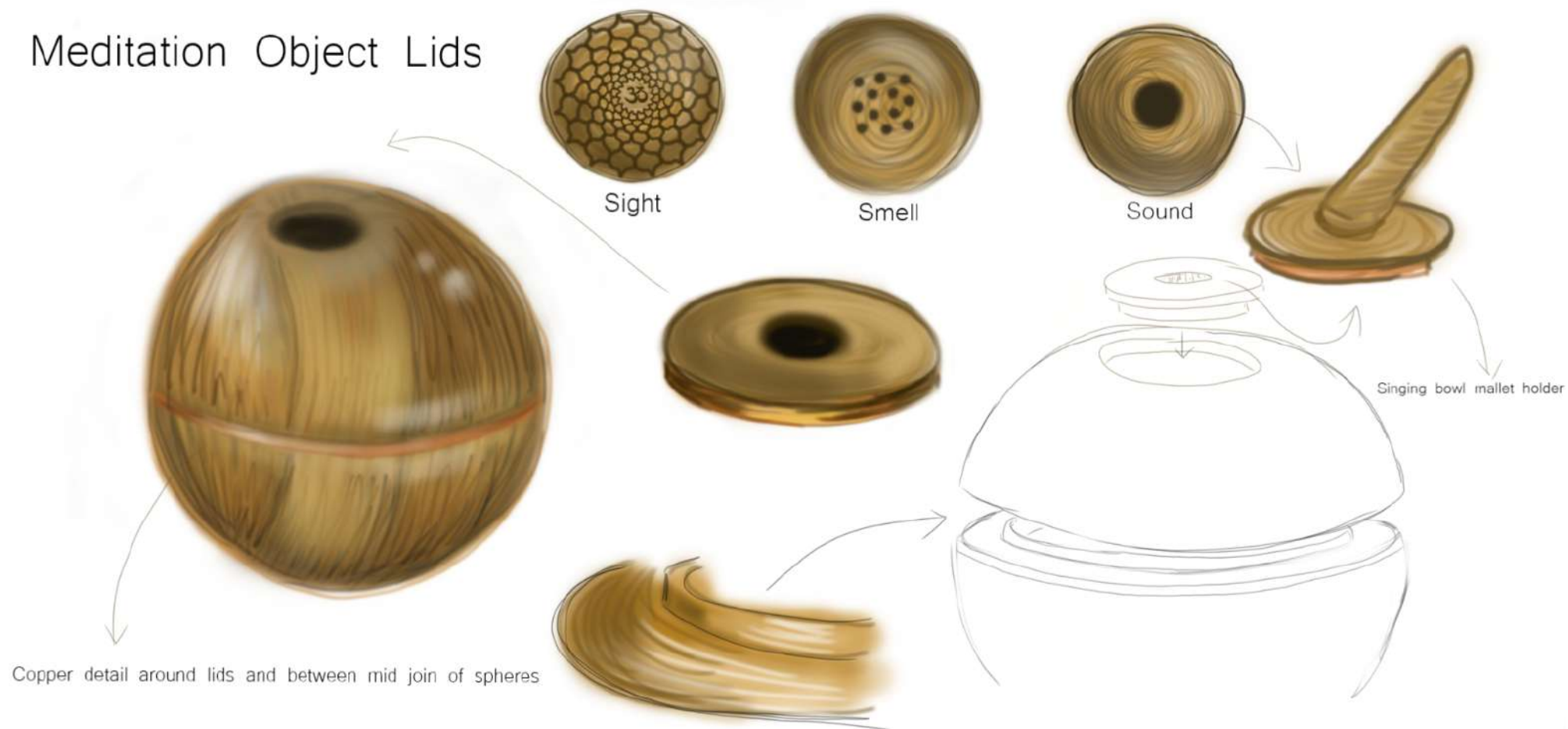
MATERIAL: Walnut or Oak Wood

PURPOSE: Produce a calming scent to improve meditation



Objects for the Senses

Meditation Object Lids



The Significance of Wood

For hundreds of years wood is a material which has been used in Eastern religions, due to its deep connections with Buddhism.

In Buddhist story telling the buddha was told to have spent significant amount of time in nature and particularly around trees- which are also considered sacred.

Tang Dynasty Wood
Sculpture
Source: Tokyo National
Museum, Accessed:
https://www.tnm.jp/modules/r_collection/index.php?controller=dtl&colid=C30



Wood Lathing



I approached Stephano with my idea to create a hollow wooden sphere and he introduced me to the lathe.



After a few weeks of practise I was able to hone my skills and improve my technique to the point I could produce wooden spheres quite efficiently.

Skill Development



Nature: Hanging Planters

MATERIAL: Chestnut

PURPOSE: Introducing nature into an environment helps to improve the air quality to accommodate deep breathing.

CONTEXT: In Asian culture and particularly within Buddhism nature is considered an integral part of the Buddha's teachings.

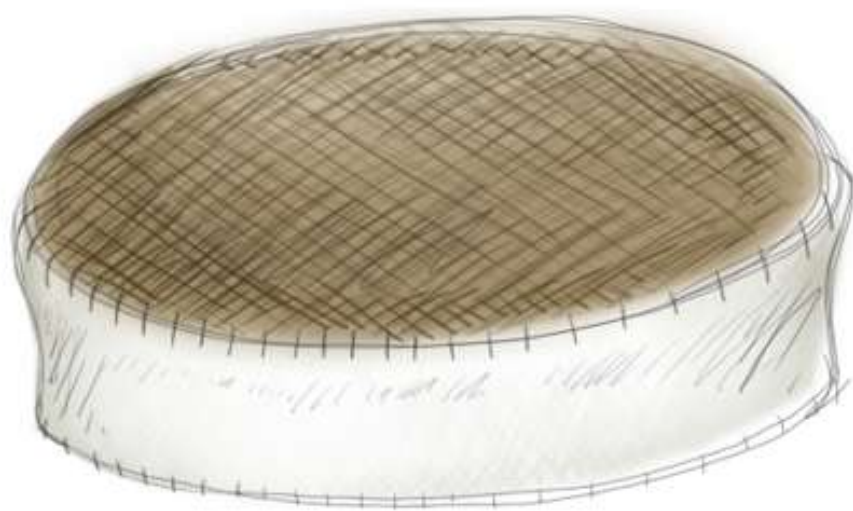


I would use fill my planters with plants which are known to improve air quality to assist deep breathing exercises during meditation, some of which include; Snake plant, Spider plant and Aloe Vera.

I felt that the contrast of the white against the bare chestnut helps to bring out the beauty in the texture and the tone in the wood as well as making the object look more unique to this collection.

Cylinder top and domed bottom to reference the circular form carried across everything within the Enso Collection

Comfort: Meditation



MATERIAL: Cotton

PURPOSE: Increase comfort during long periods of Meditation; the most traditional sitting position

CONTEXT: The design is simple in its nature, carrying across the symbolic circle form as well as natural colouring to fit in with the Enso Collection.

Traditionally the cross legged position is used during meditation as it allows for the back to remain in good posture while also being fully relaxed.

Aesthetic stitches, neutral colours and circular shapes to tie in with the Enso Collection



Ideally the cushion should be firm and give slight elevation

Communication

After some reflection I considered the range of techniques I could use to help make the space not only calming, but also one which might help accommodate communication- the most important element of the BYC sessions, and therefor considered perhaps making a game like scrabble.

After discussing the idea with Samantha, she thought it was a nice idea but that it might not be used very frequently given the demographic of the groups participants.

Although this piece will not be going to the BYC, I thought it would be a good piece to include as part of my project as it help to represent the importance of communication throughout my research.



Reflection on Group Crit Feedback

During my second group crit a few of holes in my project were pointed out to me, some of which including;

- Fire proofing objects
- Cannot use acrylic with flame/ consider artificial light
- Cedar oil for scent
- -Anxiety group write ups
- Creating space for meditation

KEY POINT- What objects would you need for the ideal meditation space?

From these points which I recorded during the crit, I then decided to create a more direct view of how I would tackle these issues by translating them into 'Problems & Solutions'

PROBLEMS SOLUTIONS

- | | |
|------------------------------------------|------------------------------------------------------------|
| 1. Resin bad choice | 1. Use Jesmonite instead |
| 2. Fire Proofing not considered | 2. Use metal piercing or use artificial light |
| 3. Not enough objects for show | 3. Create textile + Plant pieces as well |
| 4. Shadow of chakra untested with light | 4. Test with artificial candle light |
| 5. Research doesn't directly inform work | 5. Base outcomes on feedback collected during BYC sessions |

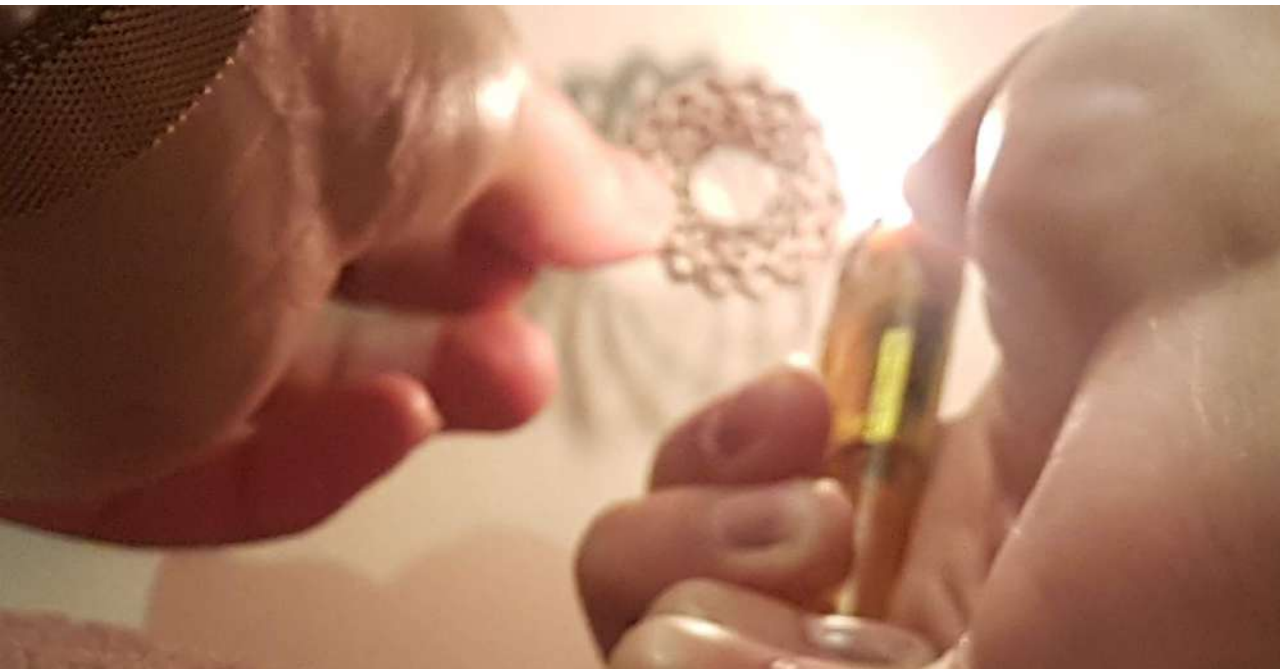
Meditation Chakras

The Chakras

The chakras within yoga and meditation define the centres of energy within the body, those of which include;

- Crown
- Third Eye
- Throat
- Heart
- Solar Plexus
- Sacral
- Root

Each of these centres can be targeted using different posing and breathing techniques in both yoga and meditation.



Sight: The Heart Chakra

An led candle light creating a projection of the heart chakra, a method of lighting which has symbolic meaning, tied into the history of meditation.

Original Images



Smell: White Sage Incense

This sphere acts as an effective holder for incense, which has been used as a tool to assist meditation for many years. The scent of sage in particular is one which is used to enhance intuition and any spiritual practise.

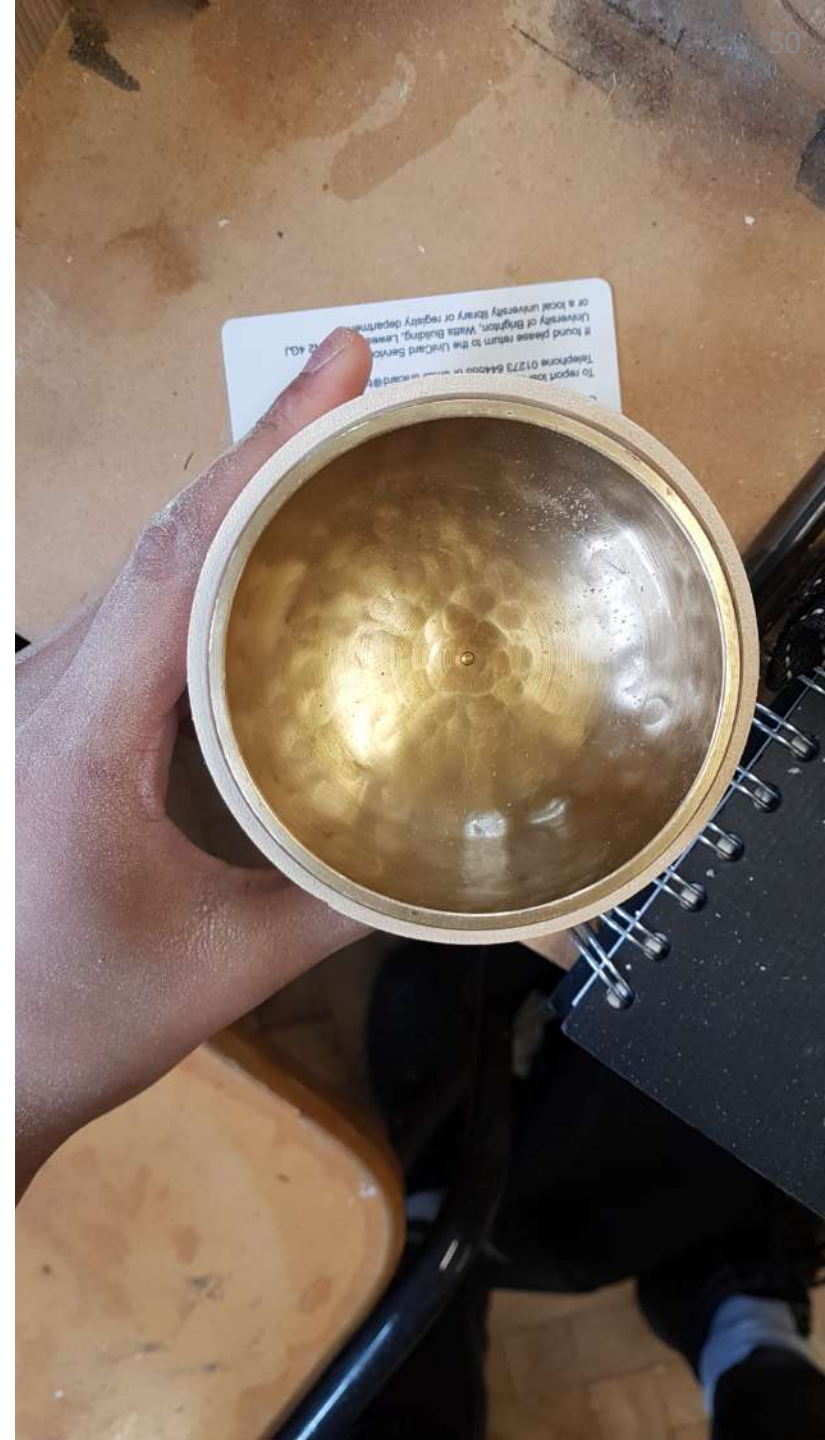


Sound: Traditional

The first sound sphere houses an 80 mm singing bowl, which are generally used during prayer and meditation.

The bowl works most effectively when placed on a solid platform, with nothing touching the walls and stroked around the outer rim which a wooden mallet.

Original Images



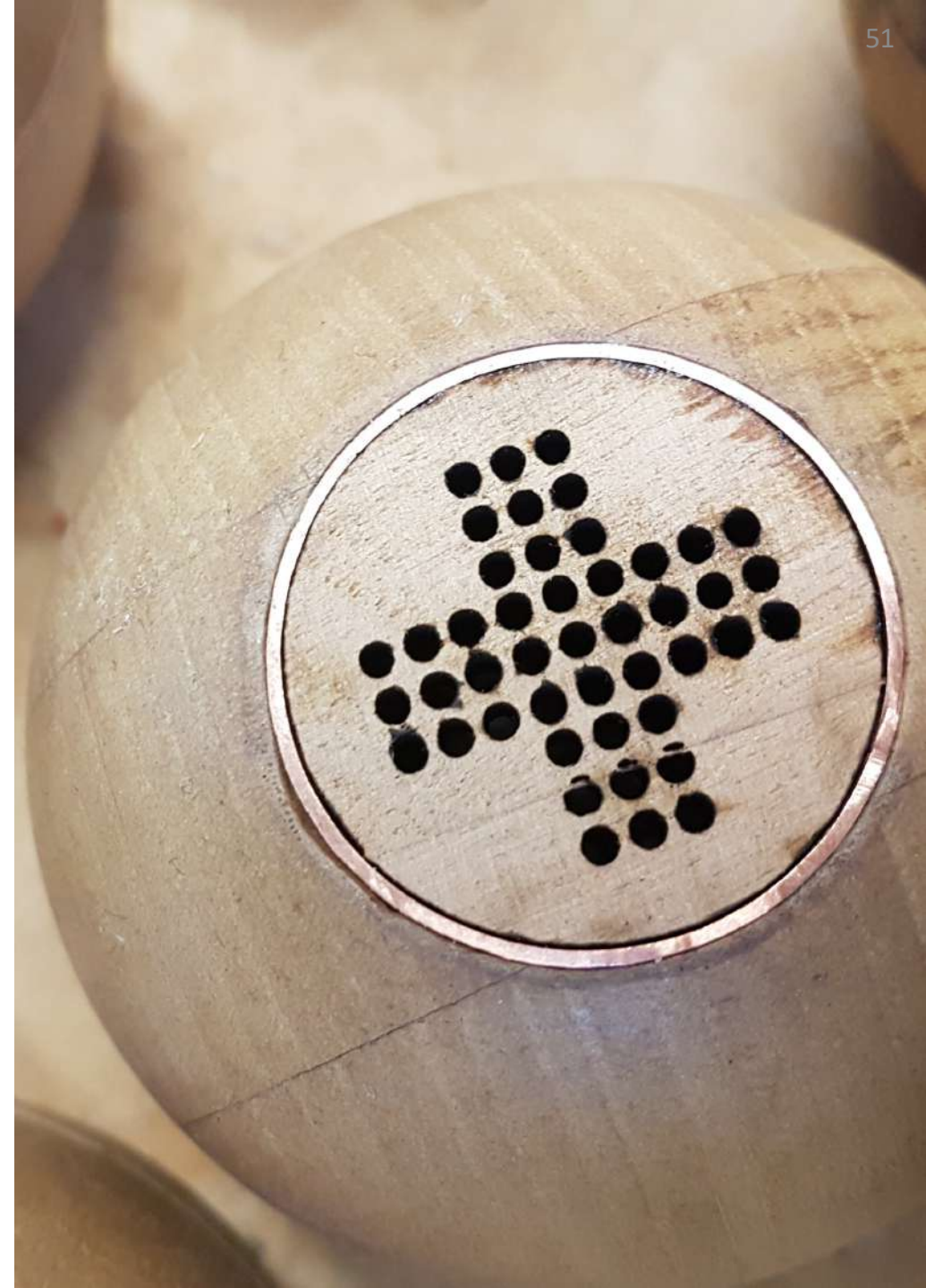
Sound: 21st Century

Considering the context in which I am placing my designs in I thought it would be necessary for me to create a sound sphere which also specifically catered to a 21st century audience- also many of the youth I spoke to at the BYC talked about using music as a method for relaxation.

Therefore I placed a bluetooth nano speaker inside, so that the youth at the BYC could use it as they do at home.

The shape of the sphere takes away the sharpness of the sound, and gives it a much softer sound, perfect for meditation.

Original Images





Cushions

These cushions were designed in a circular form, in keeping with the symbolism of the Enso collection, will also providing back support and comfort during sitting in a cross legged position during meditation.

Original Images



Planters

The planters add an essential element to the Enso collection, in their inclusion of nature. I have found from personal experience and my research that plants within a space increased the air quality, accommodating deep breathing during meditation.

Original Images



The Enso Collection



Giving Back: BYC

The only way I felt that this project would ultimately have meaning would be if it fulfilled its purpose in helping to create a calming environment for individuals who suffer with Anxiety, therefore I would like to donate all of my work to the BYC after the degree show.



Original Images

I based much of the design on the information I collected from the BYC sessions, and the eventual layout of the work in the BYC space was specified by Samantha, which I have drawn out here.

Conclusion

At the beginning I simply set out to create something which would help reduce Anxiety, and over the past few months this has given me the opportunity to delve deep into the causes of anxiety scientifically but also the social and physical implications of the disorder.

Although I was able to collect a reasonable amount of data from anonymous individuals at the university, it was when I began attending the BYC that I really got a glimpse at what it really meant to suffer with anxiety. I got to know the individuals who attended and I have been able to work closely with Samantha Taylor- the project coordinator and councilor.

The sense of community I feel when amongst this group of individuals has inspired me to create something which could help promote a more calming environment and to give back to them through my project as they have given to me.

Over the course of this project attending this group taught me the reason meditation could be so important to those who suffer with anxiety. Meditation embodies the philosophy of 'Enso' by freeing the mind to create. I have also learnt that creation can come in the form of visual or musical arts, or the creation of relationships through communication. Anxiety is a disorder which forces us into mental and often physical seclusion, so it is essential for us to treat it so that the barriers we build up can be broken down.