



Western Cape
Government

Western Cape Education Department

Directorate: Curriculum FET

DESIGN

REVISION BOOKLET TERM 2

Grade 10

This revision program is designed to assist you in revising the critical content and skills that you have covered during the 2nd term. The purpose is to prepare you to understand the key concepts and to provide you with an opportunity to establish the required standard and the application of the knowledge necessary to succeed in the examination.

The revision program covers the following topics:

- **Topic 3: Design Disciplines**

CONTENT



	Page
1. Introduction	3
2. Design Disciplines	3
2.1 Visual Communication Design	3
2.2 Surface Design	7
2.3 Product Design	11
2.4 Environmental Design	13
3. What does social and environmental design mean?	17
3.1 Social	17
3.2 Environmental	19
4. Conclusion	20



Did you know?

The *Shanghai Tower* designed by Gensler has a second skin around it that cleans the air before it enters the building.

1. INTRODUCTION

"The alternative to good design is always bad design. There is no such thing as no design." – Adam Judge

Last term we looked at design literacy and being able to discuss different designs by referring to the elements and principles of design as well as the Gestalt theory.

By now you would have seen that being a designer does not only mean that you get to make your own clothes or draw your favourite anime character. Being a designer means that you need to constantly be **solving problems** and make a **visually unique** product out of that.

In this document we will help you revise your theory content from Term 2.

This includes:

Topic 3: Design theory- Basic knowledge of the **theory** and the **terminology** that underpins and describes design in both theory and practice.



It will also teach you to **LOOK, SEE** and **QUESTION** what you are looking at. This process will help you develop your design literacy skills. You will use these skills every year in design and need them in Grade 12 to succeed in practical and theory.

2. DESIGN DISCIPLINES

"Design is not just what it looks like and feels like. Design is how it works." – Steve Jobs

2.1 Visual Communication Design

VISUAL COMMUNICATION DESIGN is: the ability to communicate with 2D images/pictures. To supply information with images/pictures. This can include information design where it is used to explain complex information quickly and clearly e.g., signs, maps, posters.

List 6 examples of different industry careers in Visual Communication. (Hint! Look at your term 1 Revision booklet):

Below you will find important terminology that you have covered this last term. In the space provided include the definition and ONE example of each that you studied.

	Definition	Example
Signs		
Phonograms		

Symbols		
Icons		
Pictograph		

Look at the following two soccer poster designs and then see if you can answer the questions that follow in your workbook:



Figure 1

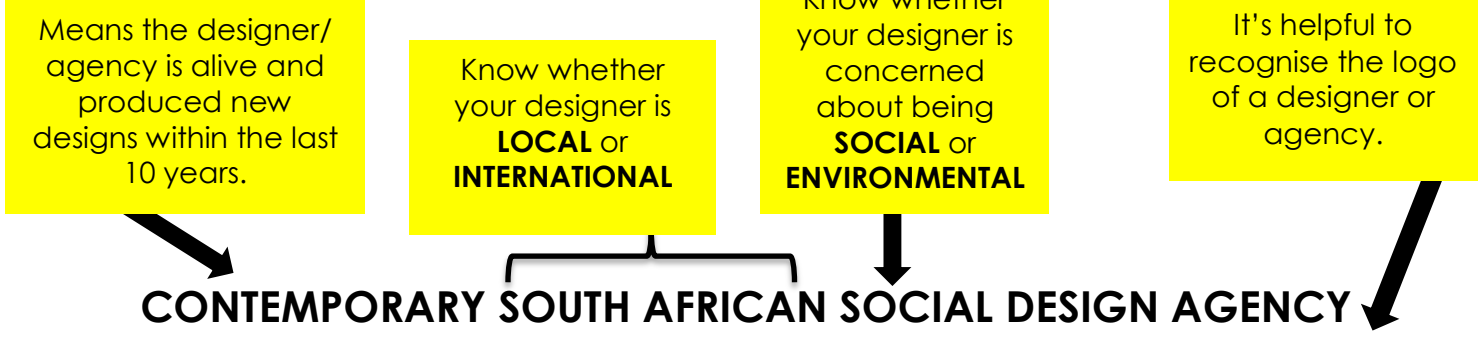


Figure 2

1. List SIX symbols that you can identify in Figure 2?
2. Identify THREE examples of pictograms in Figure 2.
3. Compare figure 1 and figure 2 in a short paragraph by discussing the following:
 - line
 - balance
 - colour
4. What media has the artist Zhong Biao used to create the imagery in Figure 1?
5. Describe the purpose of the poster in Figure 2.

We communicate **through images, symbols and signs** every day. Advertising is leading us by **visual images** like the ancient people were informed through fresco's, paintings, painted walls and ceramics. It keeps us safe and informed and adds value to our civilization.

Let's take a look at how a renowned South African Design Agency created a typeface for a South African school. In the next few years, you will need to write about designers in your practical process books and how they influence you. You will also need to write about these designers as case studies in theory exams. It's important to know what content is necessary to discuss about the designer and their designs. Let's take a look at this design agency and we'll highlight **HOW** to study a designer and what you need to know.



Design Business: **Jupiter Drawing Room**
 Design Example: **Teaching Typefaces**
 [social designer]

https://sites.wpp.com/wppedcream/2016/design/craft_typography_for_design/teaching_typefaces/
<https://thejupiterdrawingroom.com/>

Where: Johannesburg, Cape Town, South Africa

You must know the **NAME** of the design agency and the **TITLE** of the design for **ONE** mark.



Jupiter Drawing Room were approached by Reddam House to use design to create an awareness of the different cultures represented in the school. This way children would learn about the heritage of one another and not forget where they come from.

We call this section **"the brief"**. It explains the **PROBLEM** given to the designer **BEFORE** they came up with their design solution.

The design **"Teaching Typefaces"** was a series of eleven typefaces illustrated to represent a particular culture. Each letter was designed to represent the language it illustrates. From Ndebele patterned letters to potjie pots, representing loved cultural traditions.

In this paragraph you will need to be able to describe the design in detail.



When you are given a case study, you will have images of **WHAT** the design looks like. Practice **WRITING HOW** to describe these designs by referring to the **ELEMENTS** and **PRINCIPLES** of design.

The result of this design was that young children (0-7 years) were able to appreciate one another's different cultures by interacting with the designs in their classroom. This would motivate them to ask questions about one another's culture. These typefaces have been used in Reddam House across South Africa.

It is important to be able to explain WHY this designer could be described as **SOCIAL**.



In these images you will see examples of HOW the learners interact with the DESIGN.

1) What have you learnt about this design by looking at these TWO photos of learners interacting with the "TEACHING TYPEFACES".

We could say that Jupiter Drawing used graphic designers to make these designs. A graphic designer would have a specific skill set to be successful in their career. Take a look again at the "Teaching Typefaces" design and identify ONE skill and media a graphic designer would need to be successful.

Did you know?

Bahrain's World Trade Centre designed by Atkins has wind turbines between the two buildings that generates 15% the buildings electricity usage.



2.2 Surface Design

SURFACE DESIGN is the treatment, transformation, or decoration of usually 2D surfaces. 3D surfaces can also be transformed or decorated. Surface design then refers to the surface treatment or decoration of that 3D object.

List 6 examples of different industry careers in Surface Design. (Hint! Look at your term 1 Revision booklet):

Remember that a designer could start by making a 2D surface designs for example drawing a design for wrapping paper. The same design could then be printed onto harder paper and folded into a gift bag. Now it's become a 3D product design. Look at some examples of how previous learners have first developed the surface design and then developed the 3D design into a product.

Can you identify the **MATERIAL** and **TECHNIQUES** used in these examples?



The designer used the following drawing MEDIA to plan this design. Write the name of each MEDIUM below the picture.



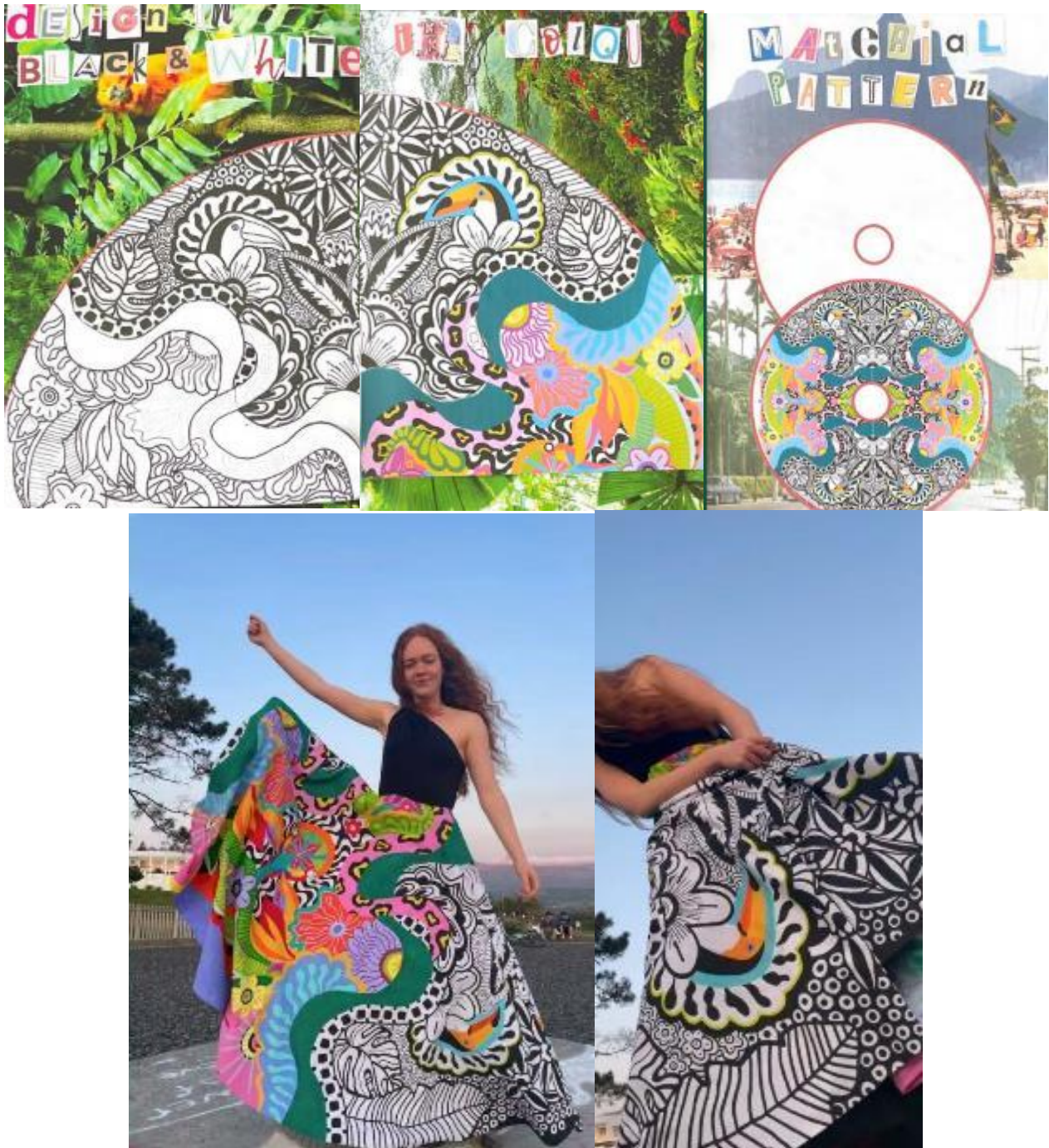
Using these same materials and tools, in the space below see if you can create your own surface design.



List 4 other MEDIA that you could have used:

- 1.
- 2.
- 3.
- 4.

Did you know? A designer could take their drawings to a company and have their own surface designs printed onto the material. You would have to buy a few metres of material of your own design printed on it. You could then make clothing with your own surface designs printed on.



Name the materials the designer used to make this design?

Describe the skills/ techniques the designer used to make this design.

Traditional crafts and craft skills are passed on from generation to generation. Even some **CONTEMPORARY DESIGNERS** are also influenced by traditional crafts and techniques, and they apply them in their designs. Design skills create opportunities for


job creation. Job creation addresses the social issue of unemployment.

Let's look at a **LOCAL SURFACE DESIGNER** that has used their 2D surface designs to make 3D products inspired by their cultural heritage. Study the following images and then answer the questions below:




EXAMPLE OF A SOUTH AFRICAN CONTEMPORARY DESIGNER WHO USES TRADITIONAL TECHNIQUES

TRADITIONAL TECHNIQUES/METHODS AND MATERIALS ARE USED



Langeseh cushions



Intricate traditional hand embroidered patterns are sewn onto recycled corn bags in a variety of patterns, rectangles, stripes, checks, flowers and fish designs which are then sewn onto a cotton or polycotton backing to produce contemporary cushions.



AFRICA IGNITE
SOCIO-CULTURAL DEVELOPMENT

Africa!gnite's Langazela cushions

The 100% cotton backing is available in yellow or turquoise, while the polycotton backing comes in 'hot' pink, bright green or navy.

These cushions were exhibited at **Design Indaba Ekspo** and also at the **Ambiente Trade Fair** in Germany



Photo credit: Africa!gnite

SOCIO-CULTURAL CONTRIBUTION

Africa!gnite provides holistic support to about 1 000 crafters across KwaZulu-Natal's impoverished heartland with its broken terrain, poor infrastructure, very high unemployment rate and high incidence of HIV/Aids.






Photo credit: Africa!gnite

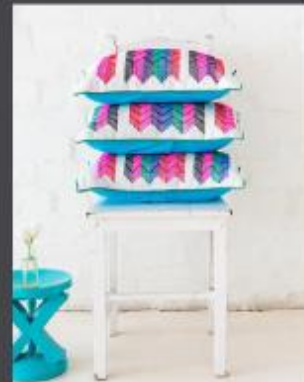

SOCIO-CULTURAL CONTRIBUTION

The rural craft organisations are groups of mostly women, who together organise to produce craftwork and to access markets for their craft.

The majority of their members are single mothers who make use of the income from craft to care for their families and often for the orphaned children of others in the community

PRODUCTS


Africa!gnite works with rural women across KwaZulu-Natal, developing and marketing contemporary products.

1. What is the name of the designer and name of the design discussed above? (1)
2. Discuss ONE of the designs created by this local surface designer by referring to:

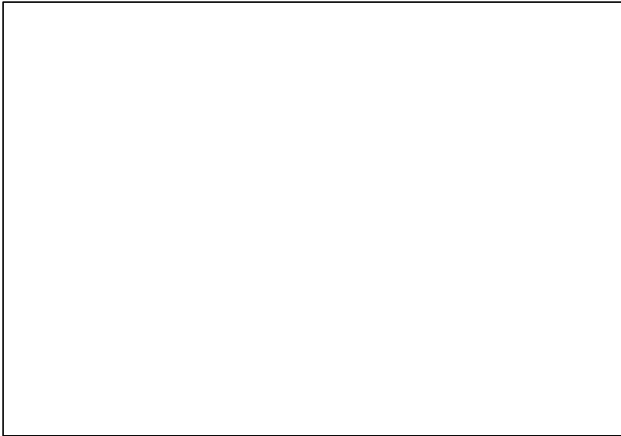
- Colour
- Pattern
- Movement

(3x2)

3. Discuss FOUR ways how this design group addressed a social issue in their community?

(4)

4. In the space below, redraw the logo of this surface design group. Analyse the effectiveness of this logo by referring to the qualities of good logo design you studied this term. (pg. 191 in your textbook)



Did you know?

Bosco Verticale designed by Boeri Studio has enough space on its balconies to include large trees and gardens.



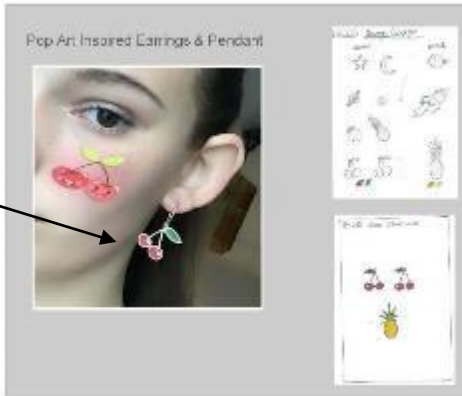
2.3 Product Design

PRODUCT DESIGN: From idea to the development of a concept, usually followed by the testing and manufacturing and finally the introduction of a 3D product. Product is always functional.

List 6 examples of different industry careers in Product Design. (Hint! Look at your term 1 Revision booklet):

Can you identify the possible **MATERIAL/S** and **TECHNIQUES** used in these product design examples?

Material:
Technique:



Material:
Technique:

Let's look at this **LOCAL PRODUCT DESIGNER** who created environmentally friendly designs by using natural materials like reeds. Study the following passage and then answer the questions below:

SOUTH AFRICAN ENVIRONMENTAL DESIGNER

Design Business: **Porky Hefer Design**

Designer: **Porky Hefer Design** Example: **Weaver nests**

[sustainable design, product design]

<http://www.heatherwick.com/>

Where: Britain, London

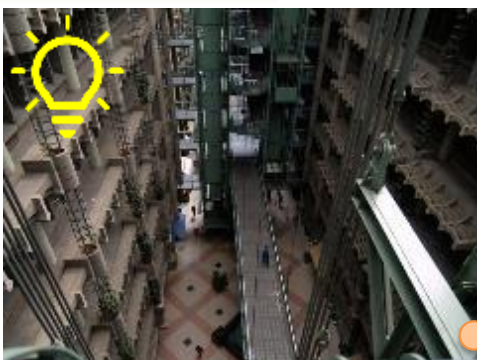


Porky Hefer focuses on creating 3D creative spaces, in a variety of forms from public sculptures to product and furniture design. Fascinated by the reactions and energy a piece can generate in a space, he embraces Africa and the skills and processes that are readily available indigenously, rather than trying to copy foreign processes. Having spent some 16 years working in advertising, Hefer is one of South Africa's most awarded creative people. BMW, American Express, Nike, Coca-Cola and Durex are just some of the big brands Hefer has worked on.

One of his projects is the '**Weaver nests**' Porky Hefer focuses on these large 3D nest like forms. He is inspired by African weaving techniques of making products and uses such skills to create new ideas. He uses ordinary, readily available and discarded materials like reeds and branches and adapts them to create new designs. He analyses the methods in which weaver bird makes its beautifully artistic and humble nest.



1. Porky Hefer's designs seem to be very playful, like adult jungle gyms. Describe how the designer was able to create this impression.
2. This design by Porky Hefer can be described as environmentally friendly. Give TWO reasons why it is an environmental design.
3. How would you describe the colour and texture of the "**Weaver Nests**"?



Did you know?

The East Gate Centre in Zimbabwe designed by Mick Pearce follows the natural plan of termites. The result is a building that requires no air conditioning system for air in the mall.

2.4 Environmental Design

ENVIRONMENTAL DESIGN: Refers to all design sectors responsible for creating the 3D area or surroundings in which we exist and live. It includes industries like architectural design, urban and landscape design, theater and set design.

List 6 examples of different industry careers in Environmental Design. (Hint! Look at your term 1 Revision booklet):

Environmental designers are like product designers in that they create 3D designs. In order to create a model of an architectural space, an environmental designer would need to have a specific skill set. This includes the ability to adapt materials to create the illusion of a 3D space. E.g. Ice cream sticks could become chairs.

Let's look at the different materials that can be used to create a 3D model effectively.

(Credit to Ms S Roux for these notes)



Paper

Because of its affordable cost and ease of use, paper is ideal. Furthermore, the thinness and flexibility of paper models, which allows for stress-free bends, curves, and slopes, is an important characteristic to consider. Triplex is a good weight for most models as it is sturdy yet malleable. You can build up your landscape using corrugated cardboard and stacking layers.



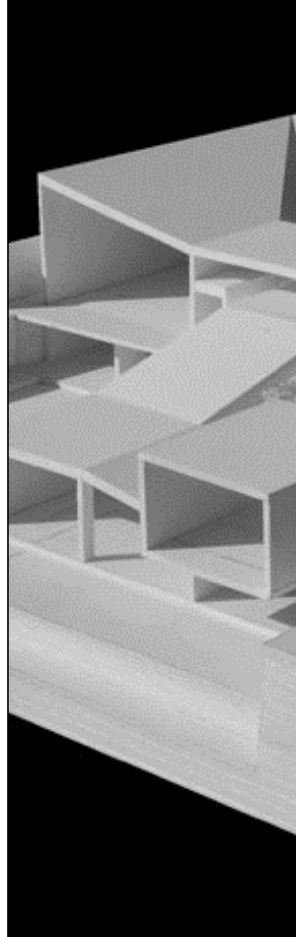
Wood

There are many different types of wood, but those with good finishes, various weights, and ease of cutting and shaping are preferred for creating precise models. Balsa wood is lightweight and easy to manipulate. Even cork is occasionally used as a surface finish. Cork has the advantage of being simple to cut and work with.



Plastic

Simply tape a printed drawing to the plastic and cut it out. Because of its thinness, it may be necessary to link multiple layers with the same cutout in order to get the desired ultimate height. 3D-printed models can be used in conjunction with plastic models to provide a foundation or background for more sophisticated and detailed designs on your architectural models.



Foam Board

A foam board is made up of a polystyrene layer sandwiched between two thin pieces of plywood. These boards are typically white, with varying degrees of weight and thickness. Foam is a great material for creating white, clean architectural models because of its nature. It is one of the easiest material to cut and allows for a great finish on joints and corners. Foam is also a durable and supportive substance – just don't use acidic glues to join it!

Air drying clay makes great small furnishings and details



Use fabric where fabric finishes are usually situated.



Based on the list of possible materials that could be used, study the following images and indicate by writing next to the images, which materials you believe were used to make these models. Include in your list, the tools that you would need other than the basic materials to make this design.

A



B



Throughout this document, we have looked at South African designers or Design agencies. In this case study we will look at the incredible architecture of Thomas Heatherwick.

INTERNATIONAL ENVIRONMENTAL DESIGNER

Design Business: **Heatherwick Studio**

Designer: **Thomas Heatherwick** Design Example: **Seed Cathedral**

[sustainable design, architecture]

<http://www.heatherwick.com/>

Where: Britain, London



Heatherwick Studio is in London. They do small projects like furniture design, as well as big projects like buildings. They focus on innovation and experimentation

Heatherwick Studio made the **Seed Cathedral** building for the Expo 2010 in Shanghai, China. This was an international fair where countries from all over the world showed their designs. If you stood inside the cathedral the light from outside shines down the rods. You could see clouds moving and birds flying.

The building looked like it did not have any sharp edges. It looked like a giant dandelion. This is because it was made of 60 000 clear acrylic rods that stood out from it like hair. The rods were 7.5m long and had plant seeds inside. There were 250 000 seeds from all over the world.

Plant species (plant groups) are disappearing from the world. The Seed Cathedral showed that we need to save plants by saving their seeds. The seeds were stored in the seed cathedral so that if the plants became extinct (all die and never grow again) the seeds would still be saved. After the expo, the building was taken apart. Some of the rods and seeds were donated to schools and a museum.



This building was a temporary exhibition space. This means that it was taken apart after a certain period of time. If you were asked to make a model of the "Seed Cathedral", what possible materials could you use?

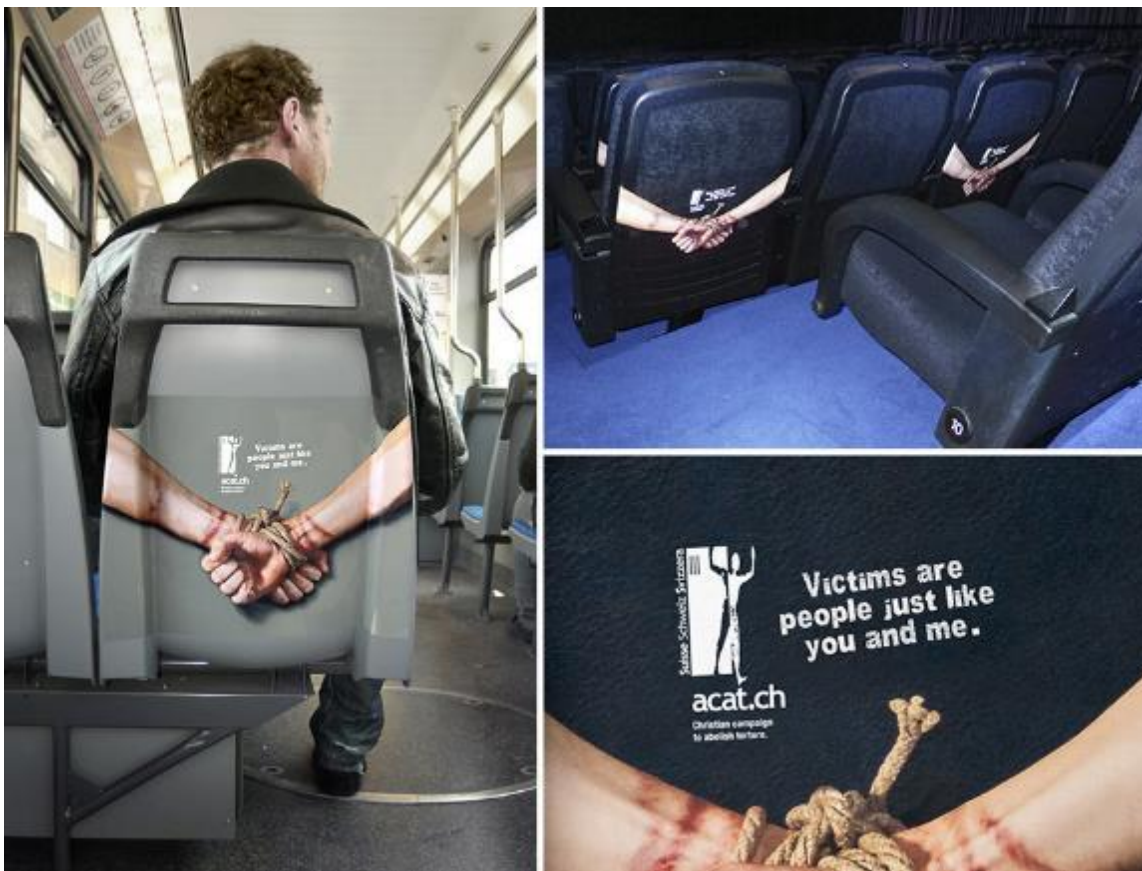
3. WHAT DOES SOCIAL AND ENVIRONMENTAL DESIGN MEAN?

“People ignore designs that ignore people.” –
Frank Chimero

3.1 Social Design

Social design could be described as the means to create designs that highlight the issues that humans face and hopefully impact change amongst people. Many designers today choose to create designs that create awareness about social issues or improve the life of people. These designs are cost effective or more user-friendly. We refer to these designs as “**social designs**”.

Let's look at a few examples of how designers have done this.



This is a clever design where the person sitting in the seat appears to have their hands tied up. It teaches us that human trafficking is all around us and even the person sitting in front of you could be a victim of human trafficking. Therefore, the social issue being addressed would be “**human trafficking**”. This kind of design is creating **awareness** on human trafficking so you as the viewer would be more observant. Therefore, we refer to this design as belonging to an **awareness campaign**. It's important to note that an awareness campaign is aimed at a specific **target group**. We can't say this poster is for everyone as little children would never understand it. The design would be aimed at adults who travel in public vehicles like planes or buses where human trafficking is likely to take place.

Now it's your turn, look at the following **FOUR** designs and then answer the questions below.



Figure 1: **“Your skin colour shoud'nt dictate your future.”**



Figure 2: **“Save paper, save the plant”**



Figure 3: **“You are not a sketch”.**



Figure 4: **“Don't talk while she drives”**

1. Identify the social issue being addressed in each image and explain how the designer is communicating this issue.
2. Describe the target group that each of these designs are aimed at. Give a reason by referring to the design.



Did you realise that Figure 3, the “Save paper, save a plant” would be described as a social issue because the less plants humans have around, the less oxygen we will have to breath in.

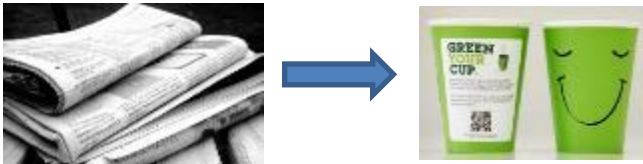
Sometimes a poster can address a social issue but it's not always as clear to see. Look at these TWO examples. What would you describe the social issue is for each poster?



3.2 Sustainable/ Environment Design

An environmental/sustainable designer would be a person who creates designs that creates awareness about social issues. This means the design will solve problems concerning the environment. A designer could do this by using either recycling, upcycling or create a design from materials that will not damage the environment when it can no longer be used.

Recycle



Recycling is the process of converting waste materials into new materials and objects. The recyclability of a material depends on its ability to reacquire the properties it had in its virgin state. It is an alternative to "conventional" waste disposal that can save material and help lower greenhouse gas emissions. In this example the newspaper has been recycled by converting it again to paper pulp and making cups out of it.

Upcycle



Upcycling, also known as creative reuse, is the process of transforming by-products, waste materials, useless, or unwanted products into new materials or products of better quality and environmental value. The soccer ball has been upcycled into a chair which has a whole new life span.

Many environmental designers have created designs that save the environments by using sustainable materials. This means that when these materials decompose, they will **NOT** impact the environment, e.g. tin. When tin decomposes it does not release any dangerous gases into soil or the atmosphere that would harm the ozone layer. However, a substance like rubber would **NOT** be environmentally friendly. To burn rubber, it releases a dangerous gas that will damage the ozone layer. A designer would then be helping the environment if they upcycle dangerous materials like rubber so they don't end up in landfills where they would be burnt.

Let's take a look at a few examples.



The "**Bogobrush**" by John and Heather Mcdougall, produced a 100% biodegradable toothbrush from bamboo and used nylon biodegradable bristles. The result was that no part of it would end up in a landfill.



Adrianna Bertini's "**Condom Couture**" can be described as sustainable. The factory damaged condoms have been manipulated into wearable clothing. The result is upcycling of the dangerous material rubber.

Now it's your turn. Look at the FOUR environmental designs in this document that have the following symbol next to them:



1. Identify the environmental issue that is being addressed in each image.
2. Explain how these buildings improve the environment that they exist in.

4. CONCLUSION

"If you think good design is expensive, you should look at the cost of bad design." – Ralf Speth

Have you noticed that in each of the headings are quotes by famous designers who have left their mark on history. Read the quotes and write down which one means the most to you and why.



"There are professions more harmful than industrial design, but only a few of them." Victor Papanek

In conclusion let's look at the words of the famous designer, Victor Papanek who challenged the design world in the 1970's :

This means that for you as a young designer, the designs you make need to be of value for the people you make them for. It's not about how rich you'll become as a designer but rather about contributing to society as a designer.