Understanding Design
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Module – 03
Start of Section 6
Lecture – 17
Function, context and consequences

So, learned ideas accidental ideas; can you give us an example of an accidental idea Binita.

Take Velcro, let see what let to its in invention in 1941, George de Mestral,

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a Swiss engineer, was out walking with his dog when we observed that the tiny hooks of the cockle-burrs stuck on to his trousers and his dog's fur. His familiarity and understanding of materials helped him develop a two sided fastener using the same principles. What an impact that small observation made.

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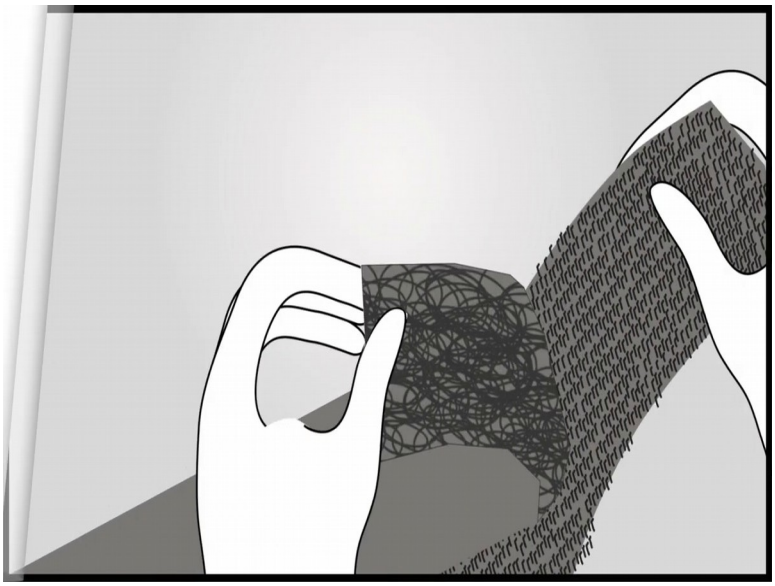

Since that time we use Velcro for clasping and fastening everyday thing. It has changed our everyday lives in many spheres, from clothes to footwear to orthopaedic aids, and now we cannot imagine a life without it.

That is quite a story, perhaps you we all need to walk some more in the mountains are find other ways to spend time amidst nature. I think nature is the one of the biggest sources of inspiration for designers.

Yes, observation of nature teaches us many principles that can be applied to all domains of design. This approach is what we call bio mimicry or imitation of nature.

Any other concerns for society that designers look at?

Well Nina, a sense of compassion may also drive design.

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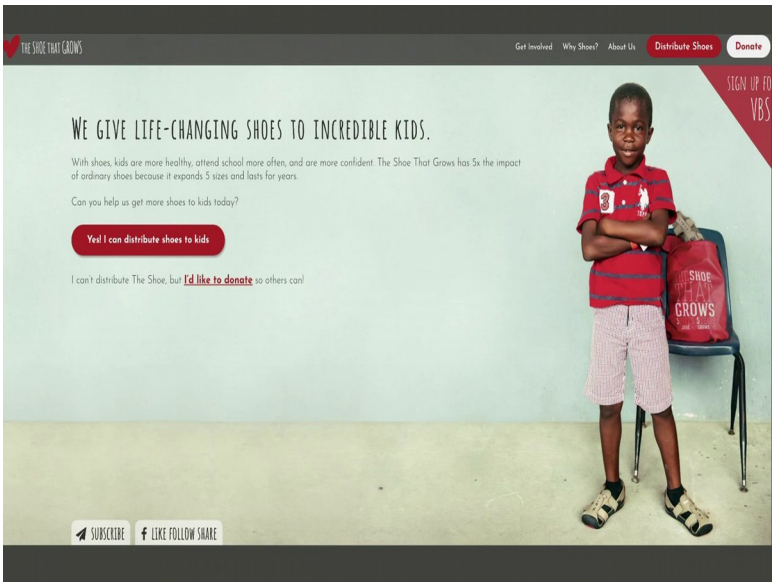

As seen in the shoe that grows, an idea by inclusion becomes the key concern.

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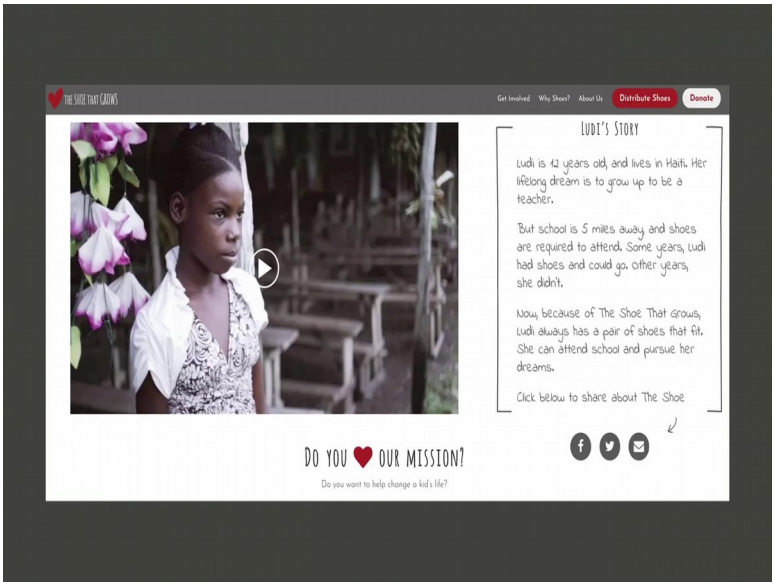

The slogan in fact is- let us shoe away diseases.

'Shoe away', that is a nice play of words.

Here the design is concerned was that children in many parts of the world suffer from parasites and diseases transmitted through the soil.

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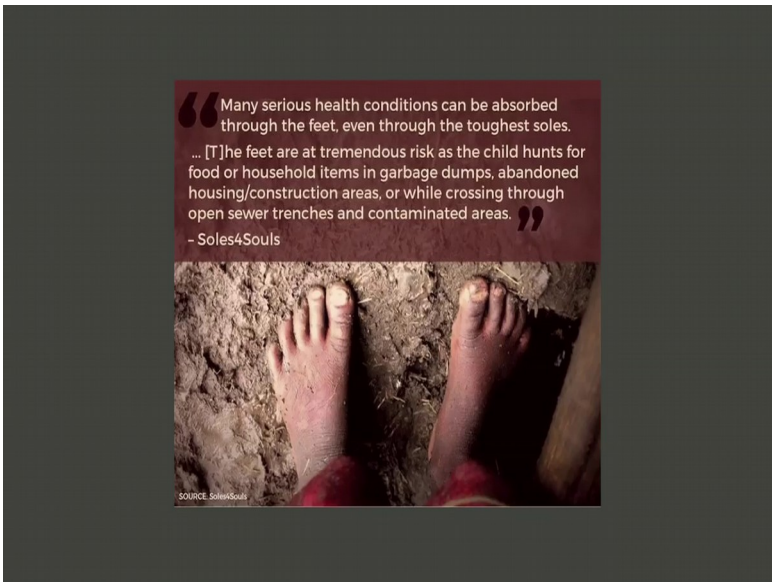

Many of these diseases enter the body because the kids do not have shoes.

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And their feet get nicked and scarped in the process of running about.

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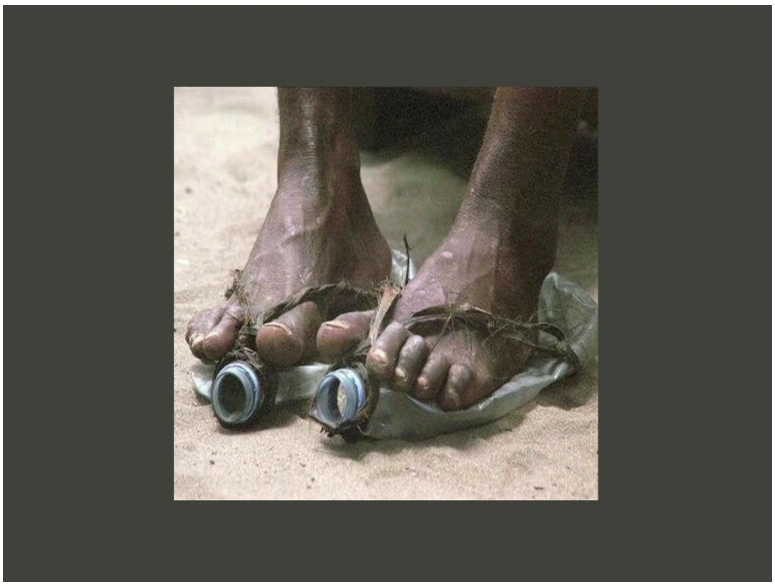

Yet when the children fall sick the parents cannot afford healthcare. The children miss school, they cannot help their families with the daily chores (Refer Time: 02:07) every-one suffers.

So, what was the solution?

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The American designer Kenton lee created a shoe that can be adjusted to accommodate the growing feet of the child, made of high quality leather and compressed rubber. These shoes are robust enough to take on rough daily use; each pair can be modified up to 5

sizes as the child grows. Imagine a single pair of shoes that is tough in its construction, can be worn for 5 years and be handed over to siblings.

An object that protects the feet of barefoot children and gaurds them against illnesses right through the growing years. It is certainly a good example of inclusive design; it aims to enable a child to lead a life of health and dignity.

There are actually many fascinating examples of design for children especially in the field of education, how does a designer approach learning for children? Learning can be easy and fun when it is interesting and experiential. Text books are one medium through which children learn in schools, but they often contain difficult and abstract concepts. Explaining these visually makes it a lot easier for children to understand ideas and to recognize them and apply them. Can you recall all the steps of the Pythagoras theorem or how to square the circle that you learnt in school?

No, I used to.

Learning by what is an exercised I can support the child only in short run which is to pass a test. For long term learning the key is understanding.

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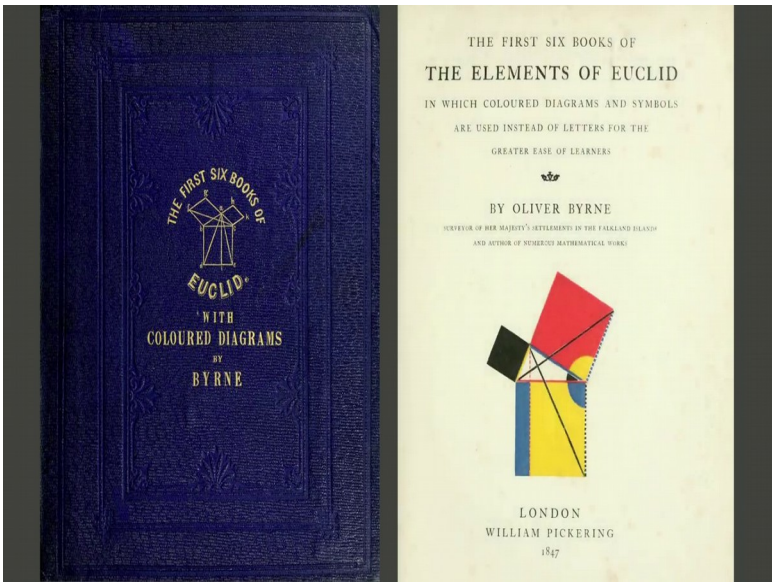

Oliver Byrne a British civil engineer made geometry easy through a set of 6 books called the Element of Euclid brought out in 1847.

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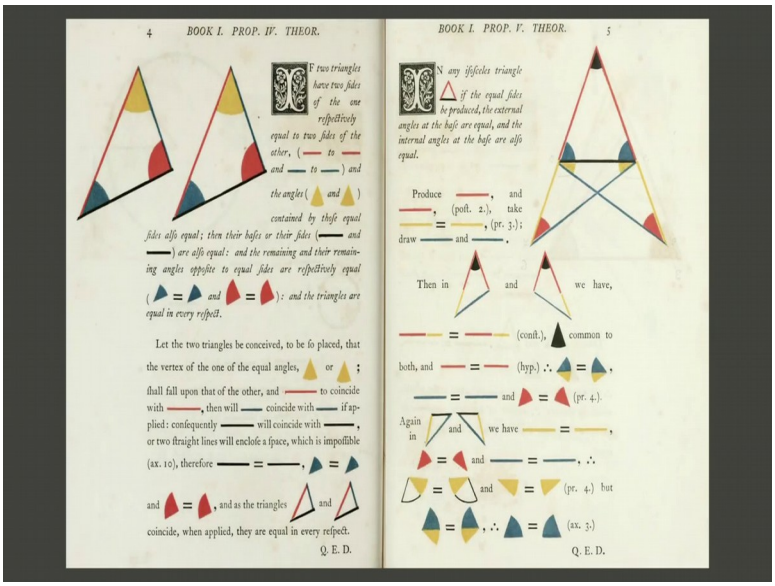

He use the unconventional method of using colors instead of numbers and unfolded the theorem beautifully from diagram to prove.

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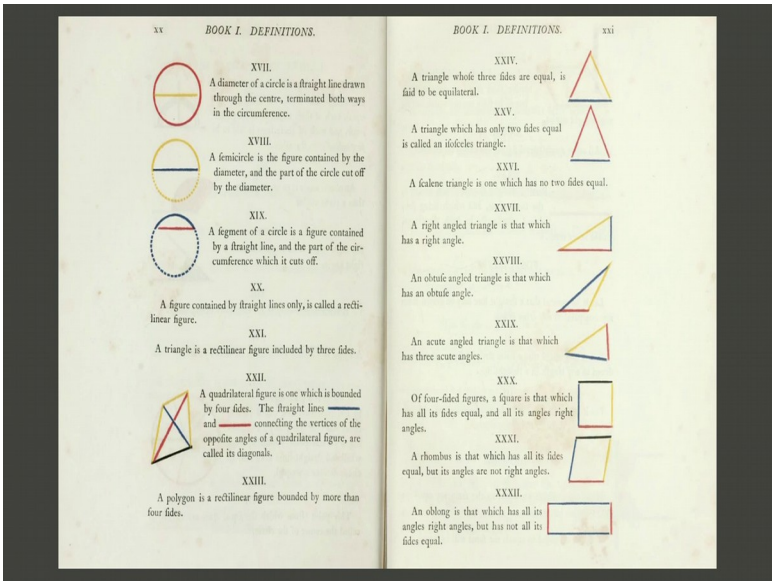

All his diagrams are designed keeping in mind the knowledge and information that need to be communicated using appropriate colors.

Communication is a very important part of reaching design to the community; you not only clarify the idea, but also built a method to communicate it as Byrne did.

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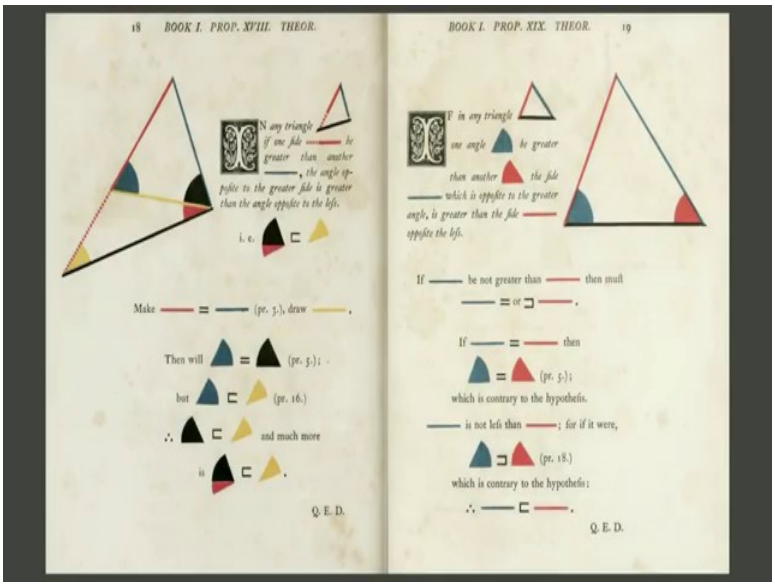

This was about mathematics which is in the realm of ideas, but even with the concrete object communicating the design thinking behind it can be as important as making the object itself available to the user. Many design practitioners today are concerned about the cause of events that follow the introduction of a design that is its social impact. They are interested in how the designed object is received and how it fairs in the context for which it was made; they have concerns about social inclusion, gender equity, environmental protection and related issues of sustainability.

Thanks Binita that really gives us a good perspective on what design can contribute to society. Designers are concerned not only about the users, but also the environment. Our next module we will introduce you to the area of design for sustainability. You will now need to go to the next tab for this fortnight's assignment; please complete and uploaded it anytime within the next 2 weeks and don not forget a little design goes a long way. See you next time.