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Crear conciencia para proteger el medio ambiente en diseños futuros: Proyecto de reutilización

Creating an awareness to protect the environment in future designs: Reuse project

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"Dicen que el tiempo cambia las cosas, pero en realidad tienes que cambiarlas tú mismo"

Andy Warhol

Resumen

En el mundo actual, mientras que muchos materiales que se utilizan en la impresión dañan el medio ambiente, como la tinta, el pegamento y la laca y el papel, entre estos materiales, el que daña el medio ambiente por su uso es en realidad el papel. Los diseñadores pueden ayudar a proteger el medio ambiente reutilizando el papel y reduciendo el uso de papel, lo que genera menos contaminación y desperdicio. Es posible producir papel reciclando residuos de papel y tal, esto es importante porque los recursos naturales no son ilimitados. Por lo tanto, uno de nuestros objetivos debería ser reutilizar el desperdicio de papel en la producción para reducir los efectos negativos del uso del papel y dejar de usar recursos naturales innecesariamente. Teniendo esto en cuenta, el tema de la reutilización, que es uno de los conceptos '3R' y uno de los principios fundamentales del reciclaje y la protección del medio ambiente, ha sido elegido en el curso Proyecto de Diseño Gráfico GRA437 I (6 + 2 7.5) en Universidad Anadolu, Escuela para Discapacitados, Departamento de Bellas Artes para estudiantes discapacitados de 4º año. En la primera parte del proyecto se informó a los estudiantes sobre la reducción, la reutilización y el reciclaje. En la segunda parte del proyecto, se crearon diseños únicos e innovadores, que permiten un segundo uso, eligiendo envases que ya están en uso o ya no se usan.

Palabras clave: Reciclaje, Reducción, Reutilización, Residuos, Diseño Sostenible, Discapacitados.

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“They say time changes things, but you actually have to change them yourself”

Andy Warhol

Abstract

In today's world, while a lot of materials which are used in printing damage the environment, such as ink, glue, and lacquer and paper, amongst these materials the one which harms the environment by its usage is actually paper. Designers can help protect the environment by reusing paper and reducing the use of paper, thus causing less pollution and waste. It is possible to produce paper by recycling paper waste and such, this is important because natural resources are not limitless. Therefore, one of our goals should be to reuse paper waste in production to reduce the negative effects of paper use and to stop using natural resources unnecessarily. With this in mind, the subject of reuse, which is one of the '3R' concepts and one of the main principles of recycling and protecting the environment, has been chosen in the GRA437 Graphic Design Project I (6+2 7.5) course in Anadolu University, School for the Handicapped, Department of Fine Arts for 4th year handicapped students. In the first part of the project students were informed about reducing, reusing, and recycling. In the second part of the project unique and innovative designs, which enable a second use, were created by choosing packaging either already in use or no longer used.

Key words: Recycling, Reducing, Reusing, Waste, Sustainable Design, Handicapped.

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Summary: 1. Introduction. 1.1. Reuse Design Project. 2. Conclusion. etc. References.

1. Introduction

The negative effects and damage to nature and life in general which are caused

by the modern consumer society in the process of production have reached irreversible levels. Immediate action needs to be taken to prevent disasters in the future. Some of the environmental problems caused by humans can be prevented by environmentally friendly approaches. In this context we see that many sectors have increased their efforts in recycling. The graphic design sector also damages the environment from design to production consciously or unconsciously. This sector can take responsibility in protecting the environment by adding sustainability and recycling concepts to design. The responsibility of a graphic designer is to keep environmental factors in mind in all stages of product development and act with the awareness of environmentally friendly product design and development principles (Figure 1). or to continue after an extract.



Figure 1. Life cycle assessment (LCA). Golsteijn, L., (2020). What is a life cycle assessment (LCA)? Retrieved on October 2, 2020, from <https://pre-sustainability.com/articles/life-cycle-assessment-lca-basics/>

Sustainability means keeping the negative effects of humans on ecosystems at a level that will not exceed the capacity of the system to transfer all the diversity and non-renewable resources in that ecosystem to subsequent generations (Ercoşkun, 2007, s.9). Although it has been described this way, ‘sustainability’, as a concept, is not only about the environment but must be considered together with its social, economic, and technological dimensions. Recently, we have begun to see sustainability as a concept which cannot be separated from design. Design has been described as ‘a tool for creating social, cultural, industrial, and economic values by combining humanities, science, technology, and art’ in the Kyoto Design Declaration signed by the members of CUMULUS (2008), ‘International Association of Universities and Colleges of Art, Design and Media’. In the declaration, the principles which express that designers have global responsibilities to construct sustainable, anthropocentric, and creative societies were accepted (Özçuhadar and Öncel, 2017, s.13).

Recycling is adding waste products, such as paper, plastic, and glass, which can be used again to the process of production as raw materials by using different recycling methods. Recycling is one of the ‘3R’ concepts, (Reducing, Reusing, Recycling), which are some of the main principles of environmentalism, and these are important to create a sustainable world and to protect natural resources (Figure 2). The 3R principles help nature by aiming to use natural resources efficiently by ‘reducing’, ‘reusing’ and ‘recycling’ (Golsteijn, 2020). Preventing environmental pollution and the consumption of natural resources, which can be

achieved by recycling as much waste as possible, can benefit humanity greatly. At this point, a designer has an important role in the life cycle of a product. When we think that a product reaches thousands of people, the designer's message, which shows his sensitivity to nature, can be transferred to the society effectively. In direct proportion to the success of designs which use the idea of recycling, society's awareness of the need to be sensitive to the environment is increased.



Figure 2. '3R', Reduce, Reuse, Recycle. Reduce Reuse Recycle Logo 24, (2020). Retrieved on November 17, 2020, from <https://webcomicms.net/clipart-9644054-reduce-reuse-recycle-logo>

1. 1. Reuse Design Project

The aim of this project has been to find an answer to the question “How can we, graphic designers, leave a better world for the next generations?” The answer is to add the principles below to graphic design lesson content to form a mindset that creates more environmentally friendly designs.

- Designing for a sustainable environment
- Eco design principles

- Preventing negative environmental effects and adding value to the natural environment
- Designing while being conscious of the environment
- Considering design on a global scale
- Ecological material selection in the design process
- Environmentally friendly energy use
- Reducing consumption
- Rethinking and reusing
- Recycling
- Producing less waste
- Reducing the effects of waste
- Developing the awareness of responsibility of the producer and consumer

Designs which consider the concept of recycling can be aesthetic and functional as well as environmentally friendly. Additionally, recycling designs can contribute to a country financially by protecting natural resources and saving energy. By attaching importance to recycling designs, next generations can have the same natural resources which we have now. In this context, in today's world, where the use of disposable packaging increases every day, we have to decrease the consumption of paper packaging to prevent the unnecessary waste of natural resource. With this aim, we chose the subject of recycling waste that has completed the post-production life cycle in the GRA437 Graphic Design Project I (6+2 7.5) lesson, at Anadolu University, School for the Handicapped, Applied Fine Arts Department, Graphic Arts Major with 4th year hearing-impaired students.

Having the idea of reusing in mind the ‘reuse design project’ with the aim of reusing waste packaging (boxes, paper bag, etc.) was defined. We wanted to create environmental consciousness in students who are future designer candidates. At the same time the designs from the project can contribute to ideas of using natural resources efficiently and creating social awareness in the production and consumption cycle.

The ‘reuse design project’ has two parts. In the first part, students were informed in a detailed way about sustainability and the ‘3R concepts ‘3R’ and they examined paper packaging samples which are currently in use. In the second part, students were asked to design using the materials given to them with the design brief aim of preventing environmental effects in their design process. The following rules were applied to the brief:

- Using no extra materials, such as glue, wire, and rope, in the design to make recycling chosen paper packaging easier at the end of design process.
- Choosing font and font size together with images, symbols, and sizes in the design by considering total amount of ink used
- Using only one colour to reduce the negative effect on the environment caused by applying many colors

In line with the brief, a sketch was made of every type of paper packaging found in the examining and collecting process of packaging which was still in use or existed as waste in our environment. We then focused on original and innovative designs which enabled the original paper packaging to be reused and gave them a new function.

With our 4th year students, in 6 weeks a total of 10 projects were completed. The projects were judged to be environmentally friendly as well as aesthetic,

functional, and enjoyable. Below is the poster which shows the stages of projects followed by each student.

The first project is a design by Merve Mert where she used a pastry company box. The actual function of this box was to carry bread but, in line with the brief, the surface of the box was taken to be reused in the design saucers of monochrome images. The design is environmentally friendly, aesthetic, and functional as targeted. 4 products were made by a cutting-folding method without using glue (Figure 3).

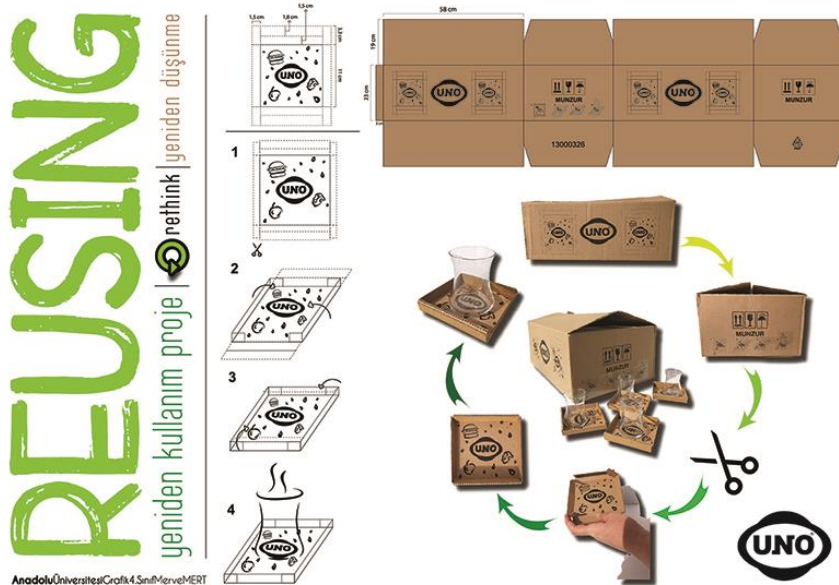


Figure 3. Merve, Tea saucer design, 2019, (writer's archive)

The second project is a design made from a box which was used to carry ceramic cups. The surface was used and designed as a toy lamb for children. The design was created without using any colour or glue in line with the brief (Figure 4).



Figure 4. Hatice, Toy lamb design, 2019, (writer's archive)

The third project was done by Merve Taylan and an LED TV box was used. The actual function of the box was to carry LED TVs but it was turned inside out for reuse. In the end the box was turned into an animal shelter by cutting and folding it, without glue (Figure 5).

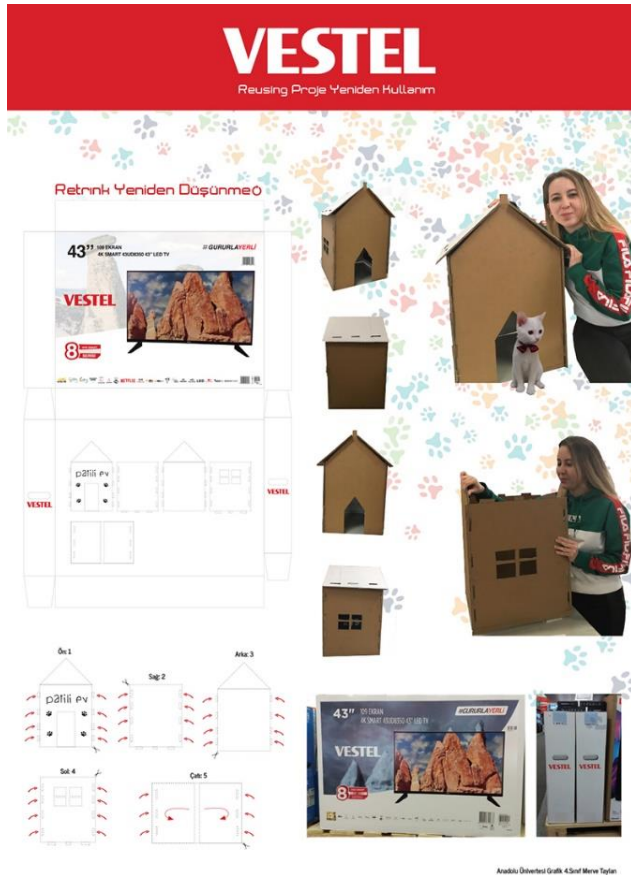


Figure 5. Merve, Animal shelter design, 2019, (writer's archive)

The fourth project was by Burhan Öztürk and it was prepared from a fluorescent light box from a lighting company. The actual function of the box was

to carry light tubes and it was turned into a lighting design by only cutting and folding it (Figure 6). There was no glue or ink used for this design, and it is good for the environment as the product is suitable for long-term use.

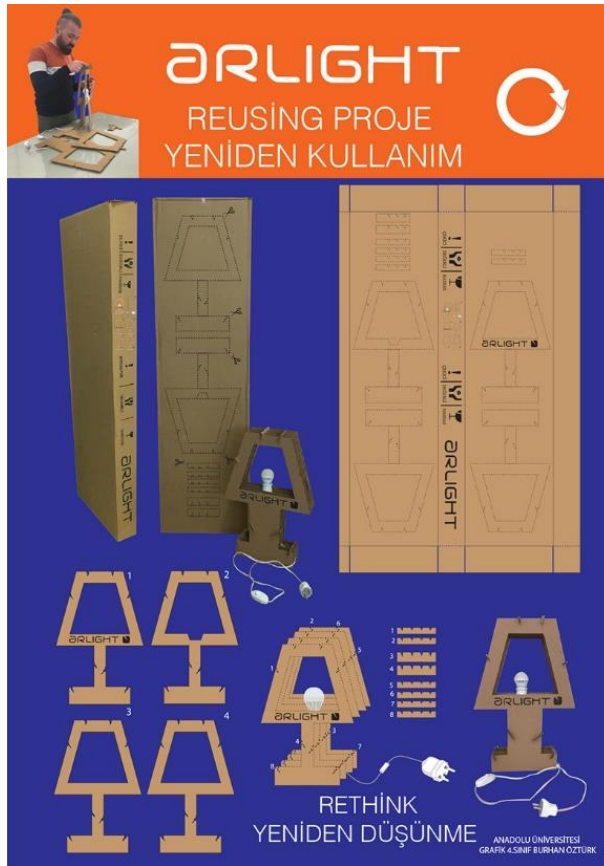


Figure 6. Burhan, Lighting design, 2019, (writer's archive)

The fifth project is by Kübra Yılmaz and it is a design prepared from a paper shopping bag from a clothing shop. For reuse, it was designed as king and queen

crowns for boys and girls. The crowns were made by a cutting and folding method using the paper bag's own colors (Figure 7).



Figure 7. Kübra, King and queen crowns for children design, 2019, (writer's archive)

The sixth project is a design by Dilek Güngörmüş and it was made using paper bag from a clothing shop. The actual function was to carry the shop's products and the surface of it was turned into a photo frame by folding and without using glue (Figure 8).



Figure 8. Dilek, Photo frame design, 2019, (writer's archive)

The seventh project was a design made from a box of a company producing food products by Emre Samet Balcı. The surface of it was turned into a play board. In this way he created a product for individuals from every age using only one color and one shade. It both entertains and makes the user think (Figure 9).

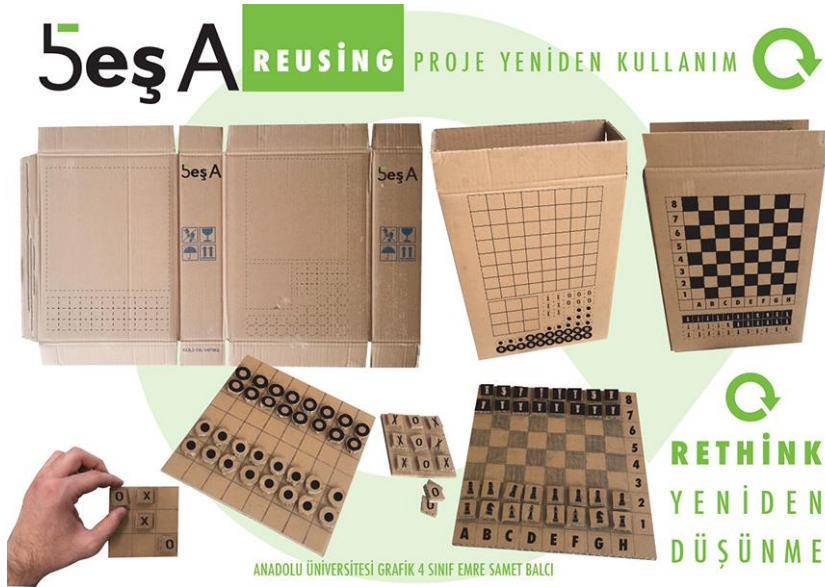


Figure 9. Emre S., Brain game design 2019, (writer's archive)

The eighth project was a design by Rukiye Erdoğan and it was designed from a box used to carry white goods. The surface of this box was reused and turned into a light powered by solar light. She created this three-dimensional product by using only the outside of the box and by folding it without any glue. She also added a part that works with solar power to save energy and this innovative approach took the product to the next level (Figure 10).

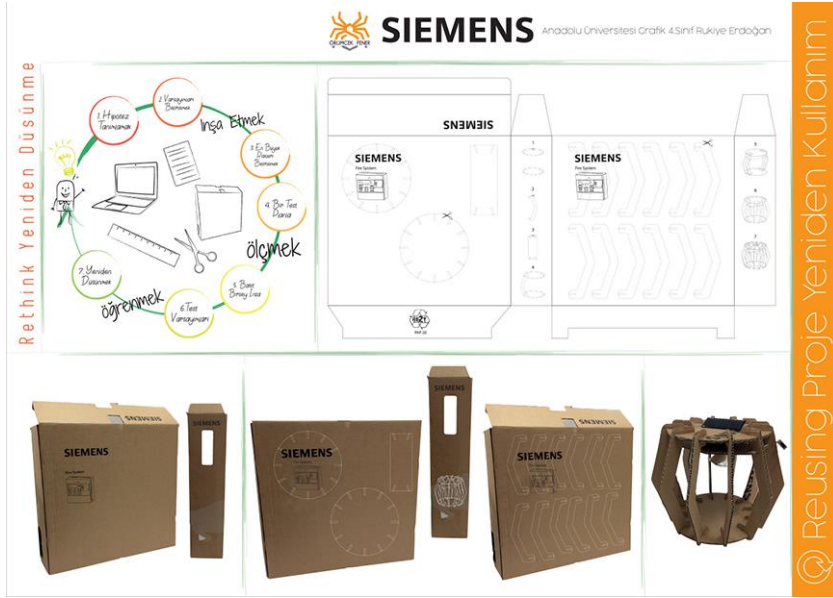


Figure 10. Rukiye, Solar powered lighting design 2019, (writer's archive)

The ninth project is a design by Veli Çelik and it was created from a fluorescent light tube box of a company producing lighting products. The original function of the box is to carry fluorescent lights and the surface of the box was reused and turned into a toy truck for kids. It was made by a process of folding without using glue or extra colors as the original color was maintained. This project used the same material as the sixth project, yet different designs were created (Figure 11).



Figure 11. Veli, Toy truck design 2019, (writer's archive)

The tenth and the last project was a design by Şeyma Tevran and it was made from a box used by a company producing technology products. The first function of the box was to carry cables and the surface of it was reused to make a shelf with pictures of superheroes for children. The shelf has the same colour as the box and, just like in the other projects, the use of glue was avoided (Figure 12).



Figure 12. Şeyma, Shelf with superheroes on it 2019, (writer's archive)

2. Conclusion

As Andy Warhol said: “They say time changes things, but you actually have to change them yourself”. Change needs a mind which changes and hands to create things, and artists have always been the minds and hands of time that have changed things. We are living in an age of production and consumption where products play the main role. Behind products are designers who can create change. For this reason, designers have an important task in raising public awareness about sustainability, recycling, and other such concepts. People learn and are shaped by experiences and, as every product and each innovation added to it is a new experience for consumers, an environmental focus on the mass production of thousands of products and designs can affect people’s minds by first reaching their

hands, houses, and their experiences. Environmentally friendly design is a message which can touch an individual deeply about what is important. Designers and artists make inferences as a result of their research and observations and this feeds into their work. Designers themselves first change by turning the concepts which affect and direct them into a life philosophy and then project these on their works. Designers should internalize sustainability and recycling concepts and add them to their priorities when considering a designs so that these will be the first step in a social change in terms of environmental awareness.

Our aim in this project was to create a step forward to help our design students internalize environmental design principles. Thanks to the products created in the reuse project, we carried out thought and design practice about reducing the negative effects of paper on the environment. We also discussed the effects of their projects' message on society about being more conscientious of the environment. These students created successful projects with the idea of creating environmentally friendly, aesthetic, and functional designs where the right relationship with the environment is established in terms of sustainability and recycling.

One of the purposes in our career should be to reconsider our improvement and growth by keeping in mind that there are environmental problems in creating a sustainable world.

It is possible to make use of all the possibilities in nature without lowering our life standards. Yet, when doing this, sustainability and recycling concepts should be included in all areas of life. All sectors should aim to follow strict environmental policies and keep recycling principles at the highest priority. Only in this way will it be possible to leave a livable environment to the next generations. In this

context, industrial and educational institutions should carry out innovative and solution-oriented projects and combine them which will raise environmental awareness and this should be created in society by implementing these projects.

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