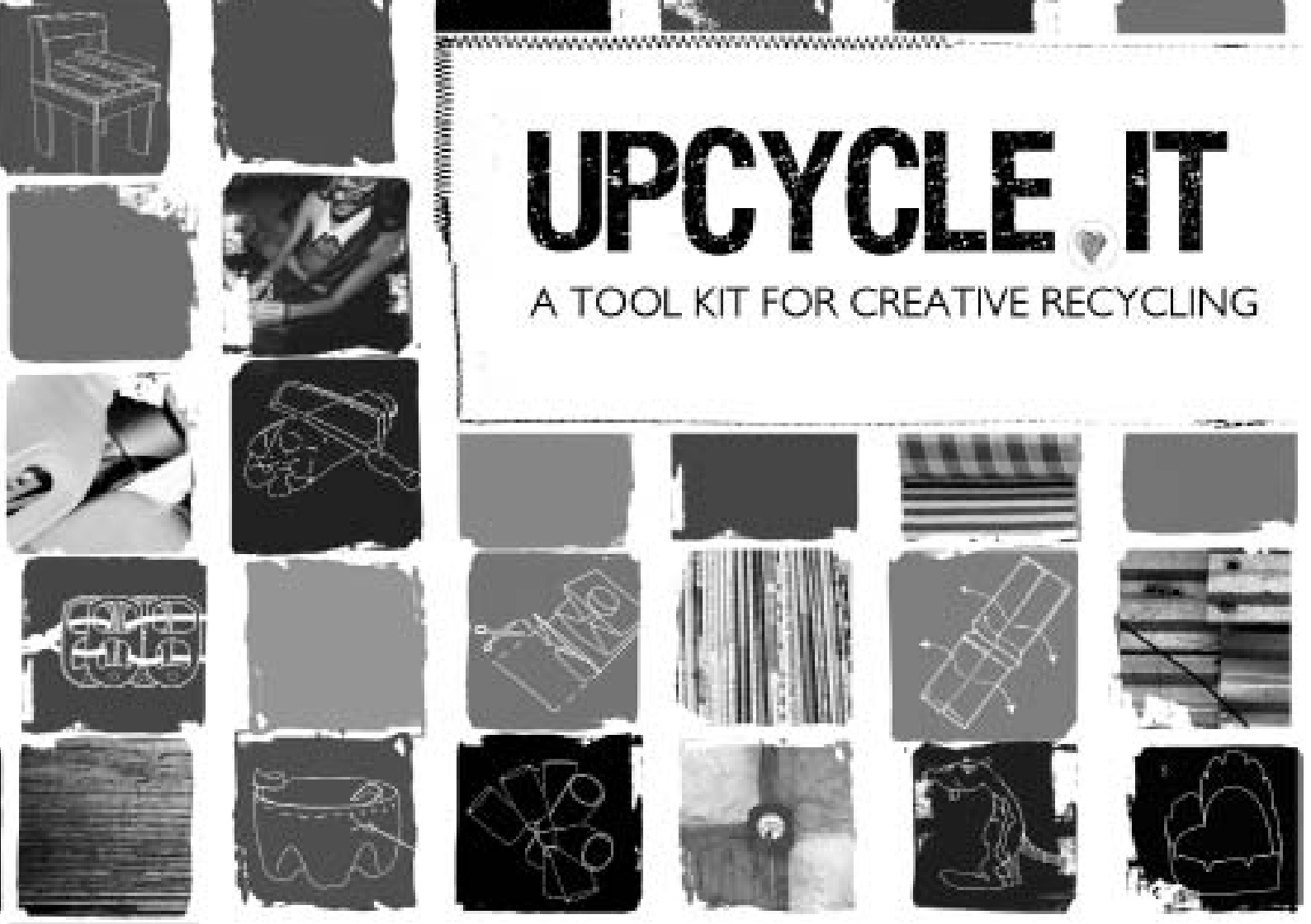

UPCYCLE IT
A TOOL KIT FOR CREATIVE RECYCLING

Year of print 2010
Printed in Berlin, Germany
Printed by: Pegasus Druck

Fonts: PetitaMedium - by Manfred Klein, ViperNora - by pOPdOG fONTS

This book is dedicated to initiatives, collectives and educators who support an open and creative approach to life and share their knowledge with others. To those who make the effort to keep themselves informed about sustainability and act to make improvements. To those who search for alternative ways of living in everyday consumerist life, and to those who have not yet started to look for new approaches, but who are curious to do so.

INDEX

UPCYCLE IT!

MANUALS

TOOLS

TECHNIQUES

ABOUT THE PROJECT

The contents of this book have been gathered through 23 workshops which took place in Asturias, Spain, and Berlin, Germany in 2010-2011. The workshops were organized in different places such as schools, galleries, creative spaces, shared workshop places, hosted by initiatives working with upcycling, or in public space.

Experimenting with waste, using it as a resource, diving deep into the topic of overconsumption, production and sustainability were the aim of the workshops. Many people contributed to the project with their ideas and energy and you can see the results in this book and online at www.upcycle.it where you can find video manuals for some of the new designs and processes. The Upcycle it! project was organized by two organizations, Ye too Ponese (Spain) and Kulturlabor Trial&Error e.V. (Germany).

ASTURIAS

BERLIN

Ye Too Ponese was founded in Asturias (northern Spain) in 2004. We are a group of people who want and believe in a participative society in which the citizens are responsible for change. Therefore we have a common motto: Instead of complaining about our reality let´s be active and change it. Our projects and activities are related with development education, youth and children participation, intercultural education, sustainability, creative activism and DIY culture. We believe that empowering people and participation are the best tools for social change.

In 2009 Ye Too Ponese sent out a call to find Asturias trash hunters. Its aim was to form a team interested in tracking down trash together, sharing ideas and creating new objects through upcycling. When they met it was love at first sight. Since then, our professional group is keeping an eye on the streets of Asturias, looking for different materials as a base for workshops that create the recipes that you will find in this manual, but always with the collective desire of making a recycled boat and sailing down the Sella river together.

The Team: Maria Perez, Zulema Cadenas, Susana Moreno, Elena María Fernández, Vanesa Moreno, Javier Mediavilla, Laura Menendez, Maria Suarez Alvarez, Susana Martínez Blanco, Simone Lucchi, Rebeca De Soignie.

Kulturlabor Trial&Error e.V. was founded in 2010 and is a Berlin based collective of designers, craftivists, thinkers, doers, artists and project managers which implement social and cultural projects. By using media, handicrafts and arts as tools, Trial&Error works in local communities and cooperate with other initatives to exchange knowledge and skills and experiment with alternative solutions to common problems. T&E works with creative activism, sustainability and development of social networks, using principles of D.I.Y., Open Source Culture and non-formal education.
From the very beginning of the project in 2010 the workshops and the creation of the book was an exciting process.

We formed a small core group, with many cooperative parters to make the project a reality. Finding people with similar ideas, creating new designs, digging in trash bins, preparing workshops, making objects and finding new materials gave us not only this book as a result, but many new close friends, ideas and good experiences. The core team of Upcycle it! Berlin would like to thank everyone who has contributed with their knowledge, time, feedback, organizing skills and inspiration to the project and especially like to give a big thanks to the crew of Open Design City and the staff at Kunststoffe for contributing to this project with a lot of energy, inspiring thoughts and acts.

The Team: Ruta Vimba, Judith Mejer, Kito Colchester, Julia Vernersson, Alice Morey, Tau Mendez, Sandra Wiesthal

FOREWORD

DEAR READER!

This book is a result of a one year process of falling in love with the most unwanted components of society – Trash. The idea of the "Upcycle It!" project was born on a rainy autumn day in 2009. With environmental disasters lurking around the corner, an economical crises approaching, overwhelming mass production and a worrying overconsumption, we started examining the contents of our trash bins.

There were different reasons to look more closely at what we actually throw away. We wanted to realize the impact we have as citizens on the environmental situation, question our habits and find out what choices we can make to change this impact. We wanted to know what we could use our trash for and why it ended up in the bin in the first place. To experiment and challenge ourselves with making the worthless valuable. To re-mix handicraft, existing knowledge and new techniques with unexpected materials. We were searching to build a community, a platform of people sharing a wish to experience a creative process together and find small solutions to big problems. So – we created workshops about trash and sustainability in different locations in Berlin, Germany and Asturias, Spain and decided to share the ideas from the workshops with you in this book.

The last year we discovered Upcycling as a concept – and as a starting point for a sustainable evolution. Upcycling is a term that describes the process of converting waste materials or useless products into new materials or products of better quality or a higher environmental value. With this concept in mind we started a learning process - from normal consumers we became trash hunters. After collecting every type of trash we needed to prioritize and learned what was more interesting to keep. We became more experienced and developed knowledge of where to get which materials, set up structures with cafes collecting waste, or large companies giving us part of their waste. We got to know the characteristics of the most common materials and we developed into trash engineers.

In a sustainable future, we think it is impossible to treat our natural resources in the wreckless manner that we do today. Actually we do not need waste at all, because after all, waste is a question of perception – what we consider as waste today could be considered as resources in the future. In nature, the concept of waste does not exist. We want to find products which are made to last and to see more often the thought of how to re-use the materials and components of the products integrated in the designing process. As well as seeing

how designers look at the entire process when they design products, and how do companies invest in this kind of products and designs. Since this future seems to be quite far ahead, in the meantime we search for alternative solutions of how to treat our waste.

The first step to avoid waste can be to not buy packaging and unnecessary products which we just use for a very short amount of time. After one year of examining everything we throw away, our team became obsessed with different types of packaging and started to examine it in the shop. The second step can be to re-use the materials until they break or to swap them with friends and other people in your local community who needs it when you do not. The third step, if you are sure that your waste seems to be unusable, could be to upcycle it!

For upcycling different materials you can find some tips, tricks and suggestions in this book. The book is structured with a theoretical part and different chapters about materials. Each manual is rated with rats according to its difficulty. Any project that is rated 1 rat level is an easy starter manual for a beginner, but do not be scared to try out manuals also on the level of 3 rats. Everything is possible if you have the patience.

Many of the objects we want to upcycle are very specific. If you, for example find your vacuum cleaner broken and it is different to every other vacuum cleaner, it can be hard to find an exact manual of how to upcycle it. Still you might want to use the parts. You can often find lot of inspiration on the internet. To upcycle many objects the best thing to do is to experiment and try out different solutions. Working as a group often increases the chances for a success.

Many people have contributed to the Upcycle it! project in one way or another, with ideas, time, inspiration, critics and trash. This is a document made out of many small pieces, and what you read here is just a small part of the big picture. We would like to share with you our ideas and experiences, and hope that you will do the same with others. All materials in this book are licensed under Creative Commons. We invite you to copy, use, improve and spread the manuals and the contents of this book as much as you like.

This book is an honest invitation to your own garbage bin, a manifest for experimentation. We wish that reading this book will be the start of a long love story, a process of designing the perfect product, or the starting point to discover how many resources actually leave your home without you thinking about it.

See you in the trash container!
the Upcycle it! crew
www.upcycle.it

CRADLE TO CRADLE

> "Waste is a man-made phenomenon!"

Did you know that the collective biomass of ants is greater than that of human beings? Interesting isn't it? Yet we humans are the ones that are destroying the world and are worrying about overpopulation. Why is that? How can ants and other living creatures survive so harmoniously? The answer is because they don't create waste. Everything that goes into their bodies comes out as a nutrient for something else. There is no such thing as waste in nature. Waste is a man-made phenomenon! The reason why creating waste is unsustainable is because resources are limited. Right now we have a linear materials economy. That means we extract resources on one end and dispose of them on another, this is known as a cradle to grave model. This design paradigm cannot be sustained indefinitely. The alternative is to create a circular, closed loop design model or as some people call it, cradle to cradle.

Under the C2C design practice, all our products could only consist of two components, technical nutrients and biological nutrients. A technical nutrient is something that can be recycled over and over again without losing quality. A biological nutrient is something that can safely go back into the soil. In this way, we would create no waste, but rather only nutrients. We would simply be adopting nature's model.

We should remember that C2C is not exactly like recycling today. Normally when materials are recycled, they're actually being down-cycled, meaning that they lose their integrity every time they go through the system, so eventually they'll end up in a landfill. What C2C is looking for is true recycling or even upcycling. Yes, it is possible to improve the quality of materials after they've been manufactured the first time.

This may sound like a dream, but all of this is possible. There are already many companies that have got their products certified. Now of course none of them are perfect yet, but we're on our way. How long will it take for us to be truly C2C? I have no idea. The process is doable, but extremely tedious. Getting a product certified requires a material assessment which means that all the chemicals that go into that product have to be known and analyzed. The reason why this is a lot of work is because every product will have multiple suppliers who might not want to reveal their information. Once the information is known, the bad chemicals will then have to be phased out. Alternatives will have to be found and implemented. All these processes take a long time.

On a brighter note, there is a new non-profit organization called the Cradle to Cradle Products Innovation Institute which will take over the certification process. Previously C2C was a registered trademark of McDonough Braungart Design Chemistry which meant that it was a private certification. Now that the C2C PII is open, they will train other consultants to help companies certify their products. This will open up the certification process and hopefully make it cheaper.

Always keep in mind that C2C is a positive message. It's not about reducing our footprint, it's about creating a positive one. We should be happy that we're on this planet. Other animals should be happy we're here too. This future is attainable and I'm convinced that C2C is the way to attain it.

By Jason Keinst Chen

Cradle to Cradle Portal
http://www.c2cportal.net/

WHAT IS UPCYCLING?

By Jaan Ugrinsky

A STEP IN RETHINKING WASTE

One man's trash is another man's treasure. In our fast pace consumer culture, unimaginable amounts of waste are produced every day. We buy an object that serves an advertised purpose, yet once the product has become outdated or doesn't fulfill its primary function anymore, it is thought that it has become obsolete garbage. From packaging to last year's fashion, once it has been replaced, it's final resting place is the dump. Out of site, out of mind. But these objects are not gone; they do not magically disappear. They lay in landfills or are burned, releasing their toxic components into the environment. From contaminating soil and groundwater to releasing greenhouse gases such as methane into the atmosphere, the disposal of used materials has a dramatic impact on our environment.

Upcycling is the practice of taking what the average consumer would call waste or trash and using it as a raw material to create a new product of higher value. In contrast to downcycling, where the value if the material is decreased (such as old jeans used as building insulation), the value of the objects is increased in the process of upcycling. The quality of the product goes from that of disposable thing to a new product. From a plastic bag to a laptop case or old cassettes to a table lamp, with a little bit of creativity and time, trash can become treasure.

Hereby, what would have landed in the landfill, is given a new life. The discarded object becomes the raw material for a new product, that in turn eliminates the need to buy new goods. First coined by William McDonough and Michael Braungart in their 2002 book Cradle to Cradle: Remaking the Way We Make Things, upcycling is a new concept that has sprung from the realization that our planets resources are finite. We only have one planet to get by with and therefore we need to adjust to living within our means.

Yet, upcycling is not the end-all solution to our problems. It is only works in a fraction of cases and therefore serves more as a visual aid to point out the fundamental flaws in our complex faulty waste management system. It is an attempt to scale down our waste hierarchy represented by the 3Rs (reduce, reuse, recycle) down to 2Rs (reduce, reuse), showing us that it is possible to use our planets resources more efficiently. The most important R missing at the top of the equation being 're-think'. This is just one step in educating us to act more responsible with the finite resources we are have. Upcycling won't save the world, but maybe a new found ecological awareness will.

REMEMBERING UPCYCLING

By Ruta Vimba

MY PERSONAL MEMORIES

Back in the happy days of my childhood, I lived in a house with no running water and an outside toilet. The majority of our food was grown in our garden, or bought from the local bakery or dairy. I remember the long queues for products that were not local, like sausages. Generally, Soviet consumerism can be described in three words – vouchers, deficit and rows. Of course, there was also acquaintanceship (a more important currency than vouchers) and the very special relationship between the customer and the shop assistant - customers had to be wary of angering the shop assistant, for example, entering the shop with dirty boots. Back in those happy days, there was also a different attitude to things – if one managed to have a TV, it was around for an extremely long time, and a blurry picture was often fixed with a sharp blow from a fist.

Later, the first meeting with the wonderful West, was through chewing gum and second hand clothes from foreign friends and relatives – awesome, electric rainbow colour nylon jackets and windy pants. I don't know why, but colour was very crucial thing – maybe, because of my age. I worshipped these toxic lemonades in plastic bottles and green and purple ice creams. We all wanted to be modern, colourful, trendy, disassociated with pioneers or wearing

> "Still, it took time to learn that you threw away plastic bags and didn't fix them with a needle and thread. "

bad quality colourless blouses. While the local bakery and dairy closed, the butchers was filled with products from other cities and even countries, barbies expelled cheburashka from the toys shelf. Still, it took time to learn that you threw away plastic bags and didn't fix them with a needle and thread.

Since the products that filled the shops came from far distances, producers started to pack them in different types of plastics, protecting cheese or bread on its way to the customer. I also wouldn't buy bread without wrapping, not knowing how many people had touched it with their dirty hands that I didn't trust. For a while, it was even quite exciting to collect different types of packagings and bags.

Knowledge about toxic substances, that plastic materials contain, came later, after watching such documentaries such as "Story Of Stuff" or "Plastic planet". So as to not end up with a pile of trash in your house, it seemed logical to throw these plastic bags, bottles, boxes and wrappings away. I mean, a PET bottle can't substitute a glass bottle and a cloth bag cannot replace a plastic one.

After inspiring talks with friends and slowly reducing the amount of plastic bags consumed, we had our teenage fun, annoying shop assistants and refusing to put tomatoes in bags so they could stick on a price. And later, in our student years, learning to shop in the central farmers market , simply because it was cheaper. It was also fun to mention shopping in market during a talk with people who clearly considered that as dirty and criminal place.
Trusting the products and estimating the value, while knowing how much time and effort are invested in them. Reusing the material, that otherwise would end up in landfill (a method invented 2,5 thousand years ago). A single tetra pack wallet, shown by a friend has all these symbolic meanings for me. As somebody said, "Don't throw anything away. There is no away!"

COLLECT AND RE-USE WASTE

By Maria Nordlund, Maria Perez, Judith Meijer

The material that ends up in your trash bin is not necessarily rubbish. Here are a few tips and tricks from people who collect what others may think is garbage at first sight. After all, trash is about your perception. When a material is cleaned and gathered in large amounts, it is easy to see it as a valuable resource.

Some rubbish collectors are very organized, but others are not quite sure how to go about it. However, they have one thing in common - they see some materials that end up in the garbage as a useful resource!

Before you start to upcycle a material, there are a few preparations that involve mainly time and space. We have come up with 7 simple steps that you can use as a guideline for your future projects.

> "For some people is easier to have a clear idea about how to make something before their start their project and others prefer more experimental way."
>
> Maria Nordlund

1. CHOOSE IT!

It is almost impossible to upcycle everything we throw away. Therefore, before you start collecting you have to be realistic. Limit yourself to certain items, otherwise your house will turn into a garbage dump faster than you think!

2. COLLECT IT!

Sometimes you need large amounts of a material for a project, more than you can collect easily by yourself. You can collect for a longer period of time, take a trip to the local shop containers or find places that you think uses a lot of this material (cafes, companies, schools, shops) and ask if they can collect it for you. You can ask people around you to help you collect - neighbors, family and/or housemates, and make a collection point at a place where they will pass. You will be happy with their rubbish and you will decrease the amount of trash they will throw away. Maybe you will spark their curiosity about what you are doing, and increase their interested in the issue of waste. If you have people collecting trash for you regularly, it is nice to give the collectors an object you have made from that material, to keep them motivated and happy.

3. CLEAN IT!

Most of the materials need cleaning before use. Some of your materials might have been in contact with food, like many packaging materials. Make sure you clean them well. One good strategy is to clean the package with the same water you have used to wash your dishes. Some packages may have contained foods items that are sticky or hard to get off, in this case you can soak in water and wait until the next day before rinsing. Beware of materials that stain, like ink cartridges or rusty metal, keep them separate from other things in their own plastic bags.

4. STORE IT!

Try to store the materials as efficiently as possible. If you are keeping an order with the materials it will be easier to have an overview of what you have. One strategy is sorting materials by type, small objects can be collected in metal cans or boxes, flat things can be stored behind a bookshelf, your room door or under your bed. Keep objects you like to work with and your tools within easy access, so you do not need to spend a lot of time looking for them.

5. UPCYCLE IT!

There are at least two ways to approach the materials you have been collecting for upcycling purposes. For some people is easier to have a clear idea about how to make something before they start their project. Others prefer a more experimental approach to the materials, and develop the design according to the material. Both of these approaches, or a different one that suits better, are good. Start to play with the materials and get into the upcycling mood! To trigger your own creativity, you can try different ideas, swap the way you usually work or look for companions who you would like to work with.

Arranging a upcycling workshop is a good way to reuse and reduce your materials, get inspired and to share ideas about upcycling.

6. CLEAN IT!

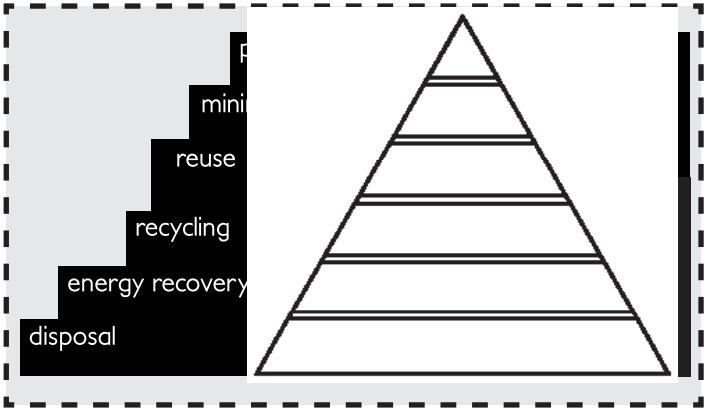
Cleaning up after a great and creative upcycling session can be seen as the worst part of the whole experience. Try to avoid gathering all materials in the same bag or bin. Keep in mind what materials you can reuse for new projects and separate them. Throw the rest away in an appropriate recycle bin.

7. REDUCE IT!

Now when you know your own trash bins well, it is a good moment to think one step further. Be aware of what trash you buy! Take a look at your consumerist behavior and try to reduce the waste that you produce daily. Yogurt cups, take away cups, separate packed vegetables can be exchanged for large packages, reusable cups and vegetable boxes. You can buy fruit and vegetables in the local markets instead of in the supermarket and use a reusable fabric bag instead of lots of plastic ones. Repairing these fabric bags when they break, instead of buying a new one, is another good strategy to prevent waste.


UPCYCLE HERE

DICTIONARY



WASTE HIERARCHY The waste hierarchy provides a sliding scale on the best ways to deal with our waste. The best option sits at the top of the scale and the least preferred option is at the bottom. The waste hierarchy aims to encourage the management of waste materials in order to reduce the amount of waste materials produced, and to recover maximum value from the wastes that are produced.

REDUCTION OR WASTE MINIMIZATION is the process and the policy of reducing the amount of waste produced by a person or a society. Waste minimization involves efforts to minimize resource and energy use during manufacture. For the same commercial output, usually the fewer materials are used, the less waste is produced. Waste minimization usually requires knowledge of the production process, cradle to grave (the tracking of materials from their extraction to their return to earth) and detailed knowledge of the composition of the waste.

REUSE To reuse is to use an item more than once. This includes conventional reuse where the item is used again for the same function, and new-life reuse where it is used for a new function. In contrast, recycling is the breaking down of the used item into raw materials which are used to make new items. By taking useful products and exchanging them, without reprocessing, reuse help save time, money, energy, and resources.

RECYCLE is processing used materials into new products to prevent waste of potentially useful materials. It can be divided into upcycling, and downcycling, depending on the quality of the end product/material.

CRADLE TO CRADLE (C2C) "Cradle-to-cradle" thinking would design the products and systems in a way which results in taking-back products at the end of its useful life and turning it into new products of equal, if not greater, value.


MANUALS
"To invent, u need a good imagination and a pile of junk." Thomas Edison

PAPER

A PAPER COAT FOR A RAINY DAY

Paper – one of the most popular materials in the daily use, what ends up in the bin. Eventhough nowadays most of the notes and information is crated and burried in the digital world, since ancient times in China, paper still brings the function of the matrica for distribution of information. Paper production is closely tied with the natural resources of the earth – flora, water, air, what all are seen as renewable.

Though, paper producers are responsible for filtering water and gas emissions of their factories, pulp and paper industry is the single largest consumer of water used in industrial activities in OECD1 countries and is the third greatest industrial greenhouse gas emitter, after the chemical and steel industries.
2 More than 40% of the industrial roundwood in the EU goes to pulpwood production.
3 Post-its, failure printings, wrappings, tissues, cardboard boxes or free advertisement leaflets – the most popular paper waste, what can be found in trash bins. Users approach to process the paper waste is – to burn it, or landfill. It rarely crosses the mind that the biodegridibility of nowadays paper in the meliorated ground is very low, accompanied by leeks of chemical substances, as well as greenhouse gass emissions.
4 The applied solutions to conserve the enviroment are such as recycling (more than half of yearly worldwide produced paper),
5 what drastically reduces the amount of energy waste and water pollution, saving natural woods and species from extinction. So far just little amount of the writing and printing paper gets recycled into paper with similar use, rest gets downcycled into net exports, tissues, paperboards and other products with lower consumer value. Meanwhile, upcycling approach offers to use waste to create wide diversity of useful things - from jewerly to furniture, self made artistic paper for greeting cards or design elements.

Still the question remains – what would You do with a paper coat in a rainy day? There are solutions, like paper shopping bags, or cardboard boxes, what could be substistuted with more suitable materials, what could be reused again and again. Reconsidering printing and copying habits contributes to the enviroment as well.


PAPER
JEWELRY
TOILET
ROLL
LIGHT
NEWSPAPER
BASKET
RECYCLED
NOTEBOOK
SPOTMAG #1

PAPER JEWELRY

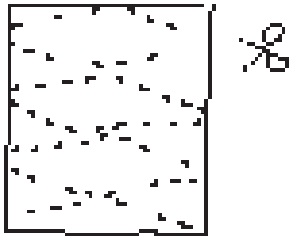
by María Pérez

MATERIALS
Paper from old magazines, newspapers, posters, e.t.c

TOOLS
Scissors
Paper glue

TIME
15 min

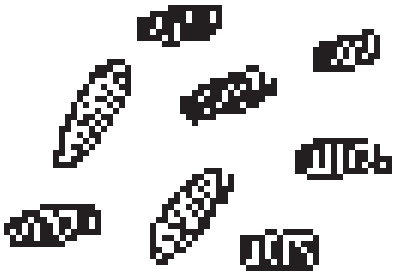
1. Cut a sheet of paper into stripes. Each strip will be 1 cm at the ends and 2 cm in the middle.



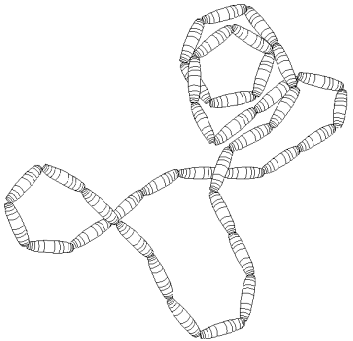
2. Starting with the wide end of each stripe, roll it till the end.

3. Varnish with paper glue.

4. Repeat till you have 20 or 30 beads depends how long you want your creation.



5. String the beads on yarn.



RECYCLED NOTEBOOK

by María Pérez
Zulema Cadenas

MATERIALS

Cardboard - cereal boxes, newspapers, posters, magazines e.t.c
Used paper - old notes etc. make sure its blank on one side

TOOLS

Strong thread or stapler
Strong needle
Sewing machine
Scissors
Knife
Glue

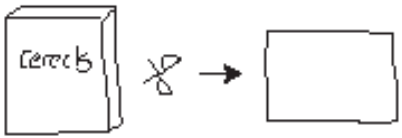
TIME

15 min

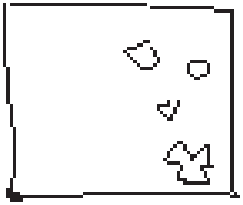
TIPS!

If you want to sew the notebook by hand, it is handy to make the holes first with a needle or other sharp tool before joining it all together with the thread.

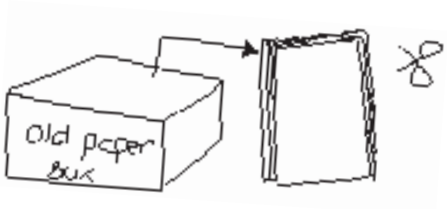
1. Cut the cardboard to the size you want your notebook.



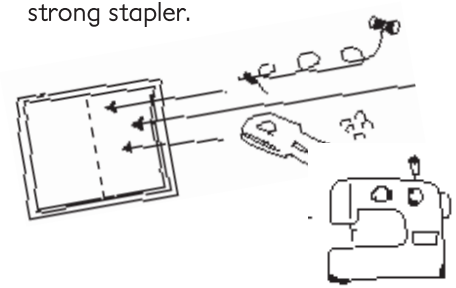
2. Decorate it as you like, using any material you want.



3. Take the used paper and cut to the same size as the cover

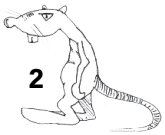


4. Sew the cover and the paper together up using a sewing machine, a strong needle or staple them with a strong stapler.



TOILET ROLL LIGHT

by Kito Colchester

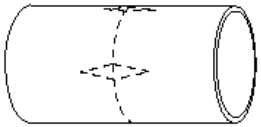


MATERIALS
9 x Toilet Rolls
2 x used Tea bags
Clear Glue

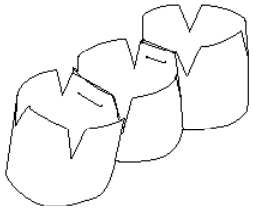
TOOLS
Scissors
Stationary Stapler

TIME
30 min

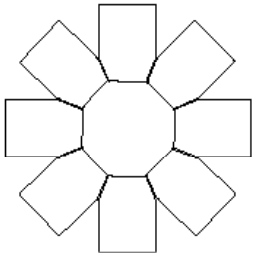
1. Cut the toilet rolls In half and add four cuts equally spaced around the circumference.



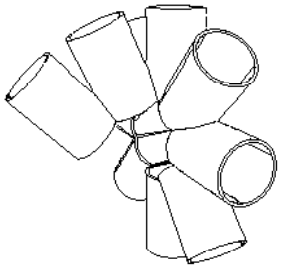
2. Then staple the halves together with the tabs facing each other.



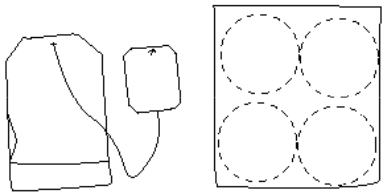
3. Continue to staple the rolls together in a string until you have 8, then staple the two ends together.



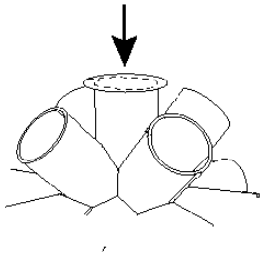
4. Proceed to staple the other rolls in the other axis until the shape resembles the one in fig. 7



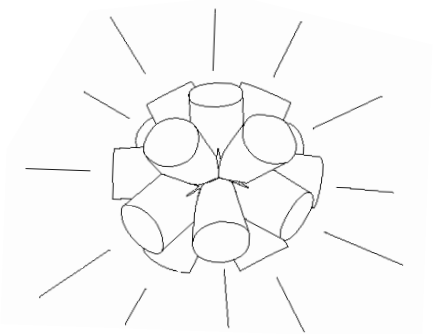
5. Open up the teabags carefully and empty the contents open out until you have a single sheet. Then cut out circles slightly bigger than the circumference of the rolls.



6. Place glue around the roll ends and stretch the circles over. Leave the bottom roll open so that an energy saving bulb can fit inside.



7. Finished!



On the way to the first Upcycle it!
toilet roll design battle in Berlin

NEWSPAPER BASKET

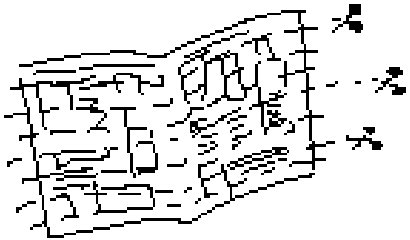
by Susana Martinez

MATERIALS
Newspaper
Glue stick

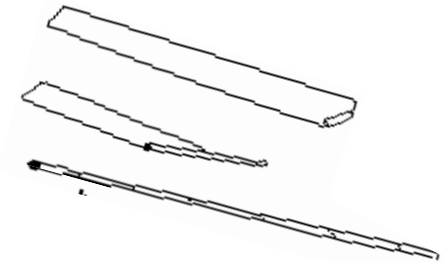
TOOLS
Scissors

TIME
45 min

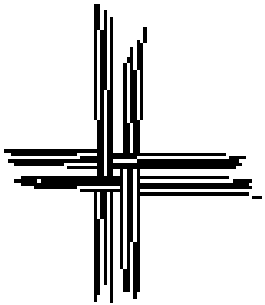
1. Cut some paper into strips of 5 x 60 cm.



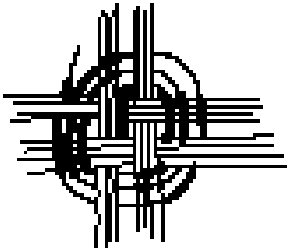
2. Roll each strip diagonally, starting at the corner. Glue at the end.



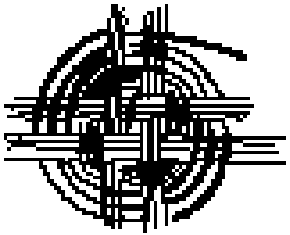
3. Start with 16 rolled strips and place as shown.



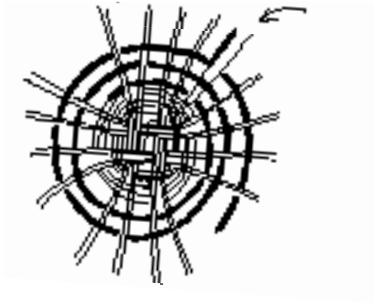
4. Roll some more strips, and start weaving as shown in diagram.



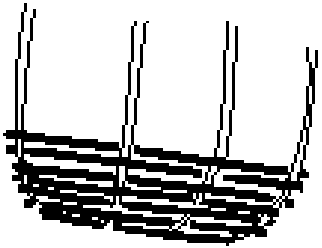
5. On the third round, jump up two groups and make another three rounds.



6. Separate the frame strips into pairs and attach one more double strip. Continue weaving but now strip groups are in pairs instead of fours.

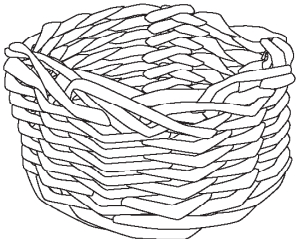


7. Shape the basket to have a thinner or thicker circumference by tightening or relaxing the weave.



8. . To finish, place one of the frame strips on the outside of the next frame strip, then inside the second one and leave it there.

9. When you have finished weaving, it can be painted or varnished.



Newspaper basket workshop,Asturias

WOOD

Wood panels, furniture, paper and cardboard are all used to satisfy our building, packaging, paper and daily needs. These products add to our growing demand for wood. Even more products we consume on our daily basis, such as rayon fabric, food flavorings and thickeners, or cosmetics and paint additives, that all contain wood.

Globally 115.7 billion ft3 of timber is consumed in a single year. If this volume of wood was stacked end to end in cubic foot blocks, it could circle the earth's equator 880 times or stretch to the moon and back 45 times.[1] Where does this wood come from? Within Europe, almost 45% wood and wood products comes from the Italy, United Kingdom, France and Spain,[2] while the global market is fed by such countries as Brazil, Indonesia and Malaysia.[3]

Wood is renewable resource and almost all by-products created during the industrial process can be used. For example, wood chips are an important resource for new building materials or energy resources. However there are several aspects that should be kept in mind: logging displaces the communities of indigenous people and often destroys habitat leading to increasing extinction rates, within Europe nearly one fifth of wood imported comes from illegal sources,i due to the reduction of the biological diversity, 90% of the traditional species of the area cant exist within the plantations. While the authorities as well as non-government organizations are working towards solutions for loss of forest territories (EU is promoting international commitment to end global forest cover loss by 2030)[4], degradation and tackling the problems associated with illegal forestry. What is interesting, however is that European authorities are planning to finance these global forest conservation measurements from carbon trade, something that American critic of excessive consumerism, Annie Leonard in her movie "The story of Cap and Trade" simply describes as as "free permits to big polluters, fake offsets and distraction from what's really required to tackle the climate crisis."[5]

However, choosing truly sustainable energy sources is the first step. As well as repairing and reusing parts of furniture – wooden bits are often thrown away in excellent condition and is readily modified with tools you may have on your shelves. Salvaging wood is a great way to save money and may gives unique and interesting result then the purchased equivalent.

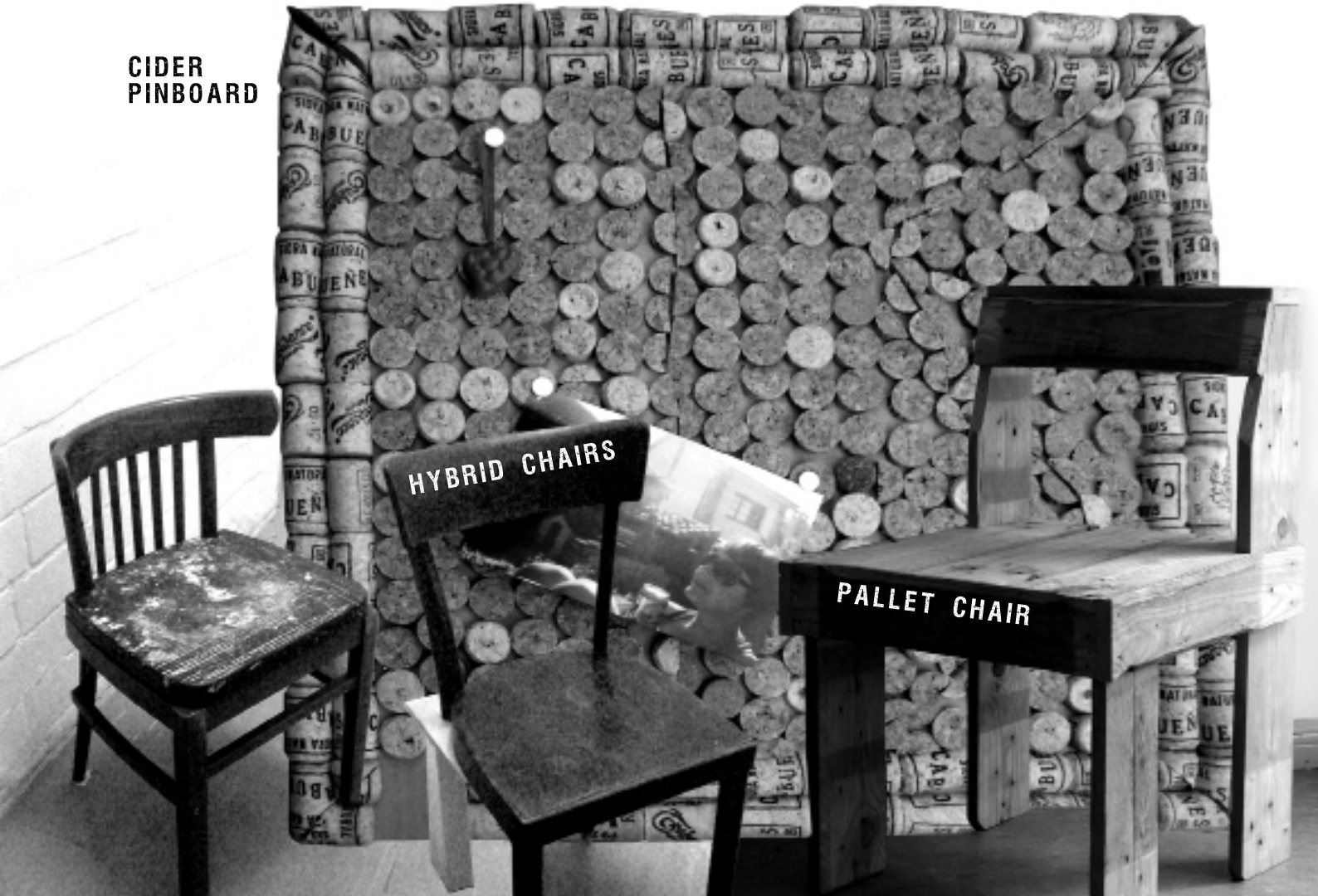
[1] Forestry Facts : A Wisconsin University Report Department of forest ecology and management

[2] Wood and wood product statistics. European Comission, Eurostat, 2009.

[3] Annual Rewiew And Assesment Of The World Timber Situation. International Tropical Timber Organisation, 2009.

[4] Wood and wood product statistics. European Comission, Eurostat, 2009. http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Wood_and_wood_product_statistics

[5] The Storry Of Cap And Trade. Produced by Erica Priggen, 2009. http://storyofstuff.com/capandtrade/-


CIDER
PINBOARD
HYBRID CHAIRS
PALLET CHAIR

CIDER PINBOARD

by Zulema Cadenas

MATERIALS

Glue (a glue gun is the easiest)
Old cardboard
Corks

TOOLS

Sharp knife

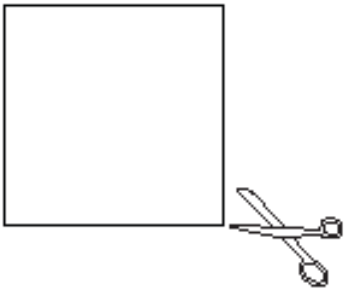
TIME

15 min

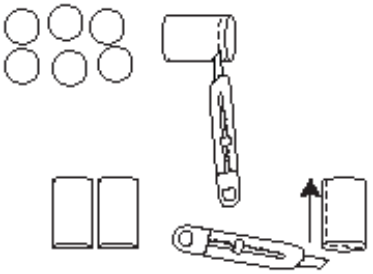
ASTURIAS

Asturias is a region known for it's traditional cider and we love drinking this cider, whether it contains alcohol or not. This means that thousands of cider corks are thrown away every day and finding creative ways to turn corks into something useful is an enjoyable pass time for us. A cork board made out of real cider corks can be a great gift and at the same time, brings traditional scents to a work places or home.

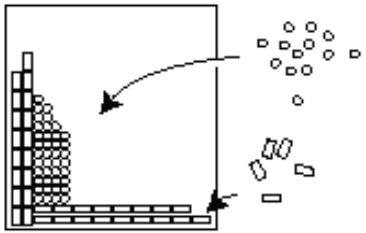
1. Cut the cardboard to the size you want the cork board to be.



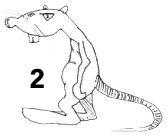
2. Cut the corks with a knife, either halving them or cutting them into slices.



3. Arrange the corks on the cardboard and glue down. The best way to arrange the corks is on their side, with the writing facing out, as shown.



PALLET SHELVES



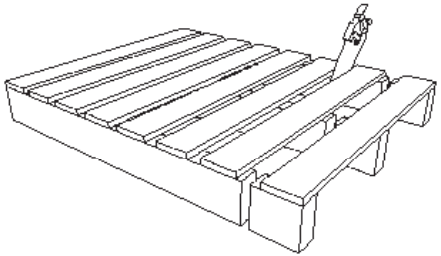
MATERIALS
Old wooden pallets

TOOLS
Wood saw
Screws

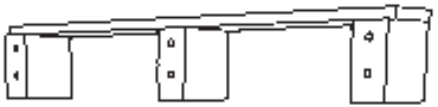
TIME
30 min

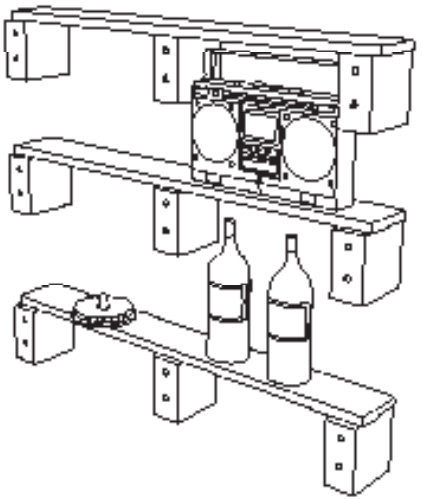
TIPS!
There are lots of ways to upcycle wooden pallets. For a shoe rack or bookshelf put the pallet upright and learn against a wall. For a table pile up two of the pallets and add a strong cardboard rectangle. For benches cut one pallet in half parallel to the slats and add 4 legs to each piece.

1. Cut the pallet to the size you would like shevles.



2. Attach to the wall.





WOOD PALLETS

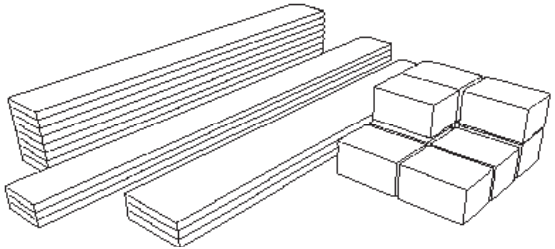
MATERIALS
Old wooden pallets

TOOLS
Crowbar if you have one
Smaller hammer with claw
Lump hammer
Work gloves

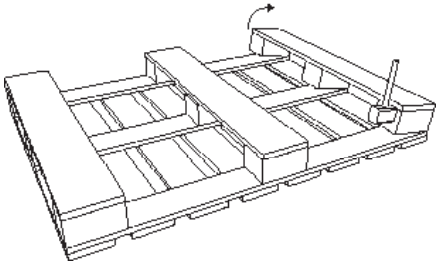
TIME
30 min

HOW TO DISMANTLE PALLETS

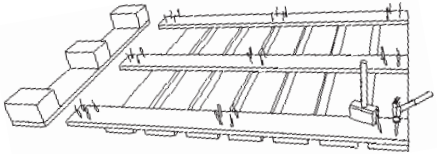
Dismantling pallets, especially ones designed to be used more than once can be tricky process so here are some tips that can help so you don't break your pallet or yourself!



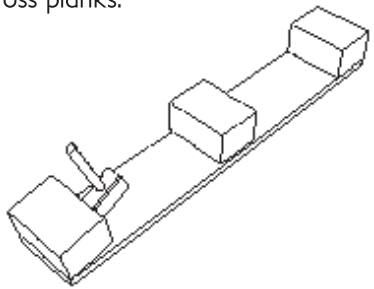
1. First turn the pallet onto its back. Use a heavy lump hammer to hit the wooden blocks and angle them off the nails. Use a piece of wood in front of the hammer so as not to damage the wood. Once the blocks are at about 45 degrees try to either prise them off with a crowbar or stamp down on them if you have strong boots on. Continue to knock off all three planks with blocks on them.



2. To remove the nails, which will be bent use two hammers to straighten the nails out by sandwiching the nail between the bigger hammer striking it with the smaller one. Then hammer them backwards through their holes. Have patience, the nails will often re-bend when trying to hammer them out. Use the claw on the back of the hammer to remove the nails from the top side.



3. Using the blocks as support hammer the top slats away from the cross planks.



Pallet furniture workshop, Berlin

PALLET CHAIR

by Kito Colchester

MATERIALS

40mm self tapping wood screws
An old dismanteled pallet
(see previous page)

TOOLS

Lump hammer
Hammer with claw
Cordless drill
Hand saw
Set square
Pencil
Work gloves

TIME

1-2 hours

TIPS!

Optional design feature is to add the branded pallet blocks at the back of the chair. If the wood is really rough you may want to sand it down a bit so as not get any splinters.

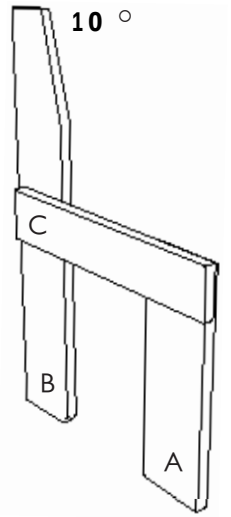
1. First cut the pieces. Cut the legs A 2x 400mm B 2x 800m. The width of the wood will vary from pallet to pallet and are relatively unimportant, choose the stronger ones.

Cut an angle of 10° 200mm from the top of the back chair legs. See Diagram

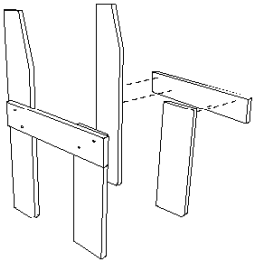
Cut side pieces C, this length will vary depending on the width on the legs. 400mm plus the width of the back legs.

Cut chair back and front and back seat supports D 3x 400mm (Optional Fourth piece E for weather protection, may not fit on top with thinner back legs 400mm)

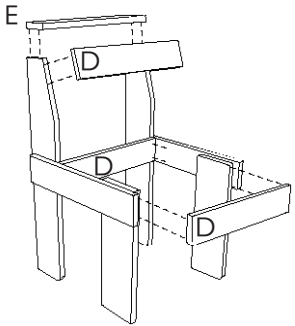
Cut Chair Seat Pieces F, these will be the same length as pieces C Minus the width of pieces D. Two of these pieces need to fit around the back legs so cut away the width and thickness of B see Picture 3 (Alternatively they can also be the shorter Length of 400cm Minus Width of D. this way you don't need to fit the wood around the back legs)



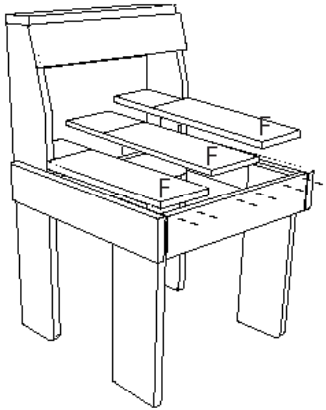
2. Screw the chair sides together, A,B and C lay them on the ground and use the set square to check the legs and side are 90° the front legs need to set back from the end of piece C by the thickness of D and also down from the top edge by the thickness of F.

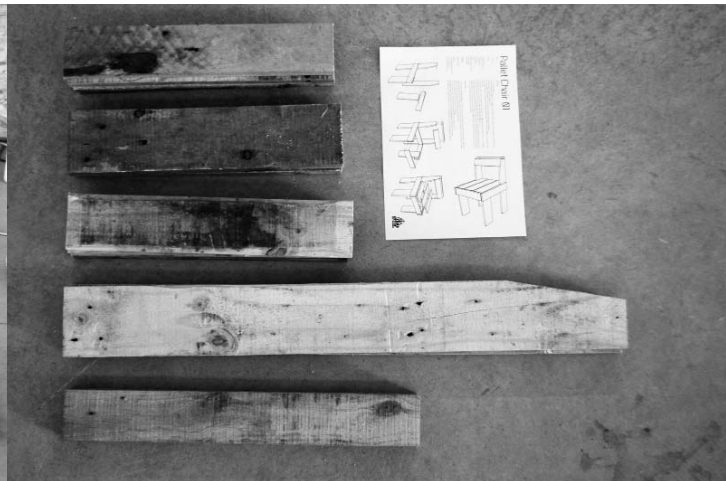


3. Screw pieces D (and E) see picture for positioning.



4. Screw Slats Down F





HYBRID CHAIR

TOOLS
Cordless Drill
Saw
Screws
Wood Glue

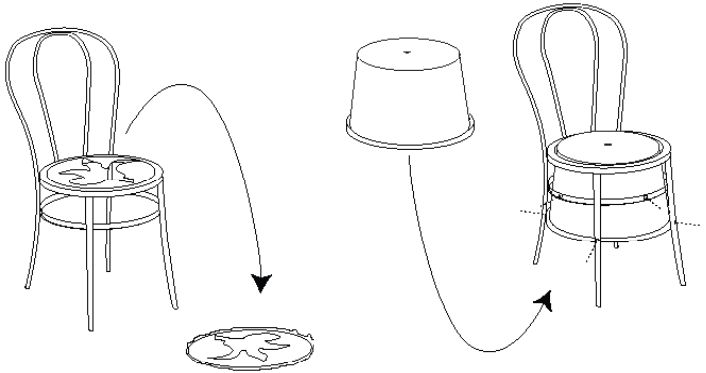
TIME
30 min - 5 hours

TIPS!
You may want to paint your chair after its reconstruction to unify it, or you can leave it, in order to illustrate its hybrid nature.

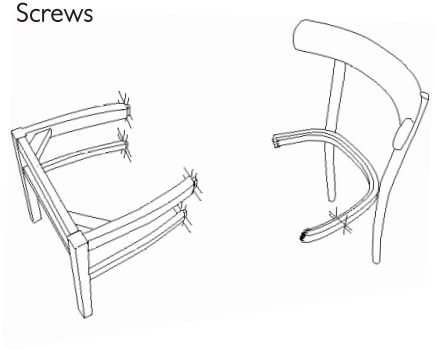
The examples here show how, with a little modification, old broken and unwanted chairs can be transformed into unique and desirable bespoke design.

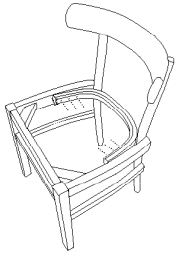
Due to the fact that every broken chair that one can find of the street will be different, it is impossible to give exact instructions. To make a hybrid chair you simply need to find two or more broken chairs, the more the better as you will be able to pick and choose the best bits from each. You must then decide the best method of joining the pieces together. See how the different parts fit together and how they can be joined. Use wood glue and screws to combine the pieces in order to provide maximum strength. Remember that chairs take a lot of stress and strain so be carful to to make your hybrid creation too flimsy!

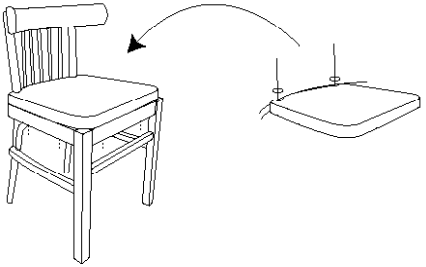
MATERIALS
Broken chair
Old bucket
Screws



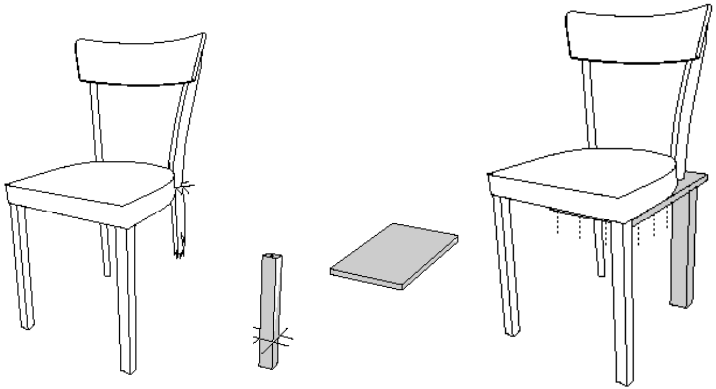
MATERIALS
3 broken chairs
Screws







MATERIALS
2 broken chairs
A piece of wood



Hybrid chair workshop, Berlin

METAL

METAL PLANET

Cans, metal caps, buttons, aluminium foil, jewellery, cars, pins, wire, pens, computers, staples, batteries, office supplies, ornaments… We really live in a planet full of metal - but it's not necessary to live in a planet full of metal waste.

The growing consumption of metal since it's discovery, has led us to the progressing problem of exhausting mines, which causes the search for new mines. Proportionally, most of the metal products are consumed in developed countries, while majority of resources come from developing countries. The mass extraction leaves gradually exhausted mines, polluted ground and destroyed biological diversity, whilst in the new mines energy costs are higher, because they are deep into the crust and in very remote locations away from the production site.

If we continue as we are, including a full extraction of metals from the earth's crust and extensive recycling programs may not meet future demand if all nations begin to use the same services already available developed nations[1].

Metals such as aluminum, lead, iron, steel, zinc, copper, gold and silver are easily recycled when they are not mixed with others substances, because they can be melted and change shape or take the same previous. The problem is when that metals are not pure.

Copper comes from places like Chile, Zambia, Zaire and Papua New Guinea. Aluminum is removed principally in Australia, Brazil, Guinea, Guyana and India. Nickel mainly from - Canada, Russia, Australia and Indonesia It takes about 400 years for aluminium to break down naturally.[2]

The energy you save by recycling a single aluminium can, could run a TV for three hours.[2]

Reusing a can is very simple - just wash it, remove the top with a can-opener and you have brand new pencil store. There are many things you can do with these 25 g aluminum.[2]

1"Metal stock and sustainability". Proceedings of the National Academy of Sciences USA.2006 Jan 31; 103(5)
2 www.recycling-revolution.com/recycling-facts.html


COOKIE
CUTTERS
CAN TAB BELT
UMBRELLA LAMP

COOKIE CUTTERS

by Maria Nordlund

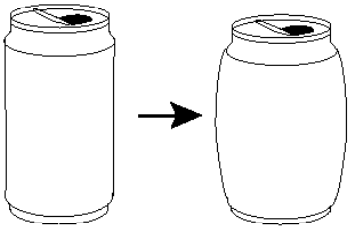
MATERIALS
Soda can
Edged and rounded objects

TOOLS
Tin shears
A pair of pliers

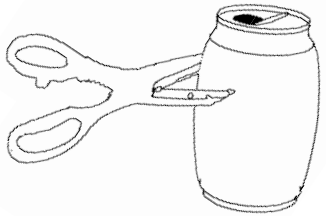
TIME
30 min

TIPS!
For a bigger cake form use a bigger can, or copper or tinplate ribbons. Attach the ends with tin solder or superglue.

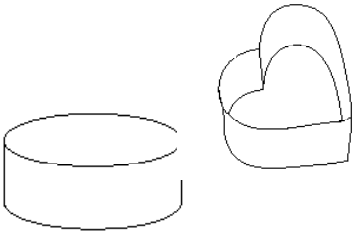
1. Flatten the soda can



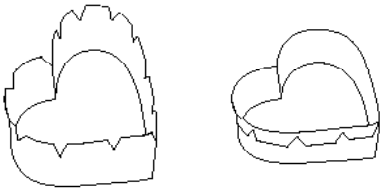
2. Cut it into 3cm slices with the tin shears



3. Bend each slice to the form you like to have for your cutter, with the help of the different objects.

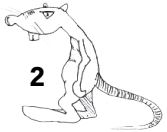


4. Cut out (8mm) from the top of the . This will join your pieces together and strengthen your form. Bend down the parts in between with the pliers to form a rounded edge.



CAN TAB BELT

by Elena Fernández



MATERIALS
Can tabs
Two colored ribbons

TOOLS
Scissors

TIME
10 min

TIPS!
With this idea you can make belts, bracelets and necklaces. The colored ribbons could be made from an old T-shirt or from some plastic.

1. Tie the two ribbons together, leaving a few centimeters so that you can later tie the belt around your waist.

2. Interweave the ribbons through the can tabs as shown in the diagram.

3. Finally, make another knot and its ready!!

UMBRELLA LAMP

by Kito Colchester

MATERIALS

An old or damaged umbrella
8 Meters of two core minimal circumference electrical flex.
Mains flex of sufficient length to power the light from a socket or ceiling connection.
8 Bulbs of not more than 25w each.
8 Bulb fittings
8 Heavy duty cable ties
2 Smaller cable ties.
A Junction box
7 Cable connectors

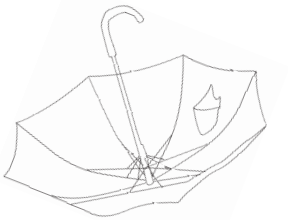
TOOLS

Screwdriver
Pair of Pliers
Cordless Drill

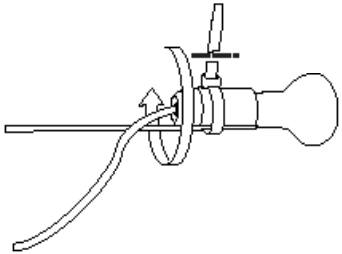
TIME

2 hours

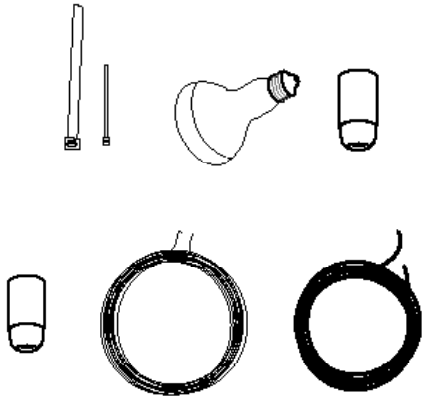
1. Remove small metal rivet pieces that hold fabric on the umbrella arms. At the top, depending on the umbrella, you should be able to remove the cap which holds the fabric without having to cut it.



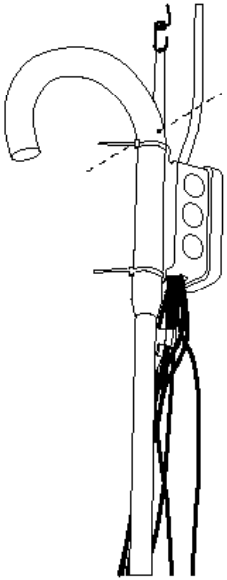
3. Attach the fittings to the umbrella arms with cable ties, make sure the fittings are secure.



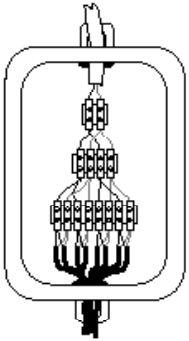
2. Cut the smaller cable to eight equal lengths they can be as long as you wish, depending on the size of the umbrella and how much you would like the cables to hang down. In this example they are one metre long. Wire the 8 bulb fittings to the 8 lengths of small cable, follow the instructions that come with the your specific fittings.



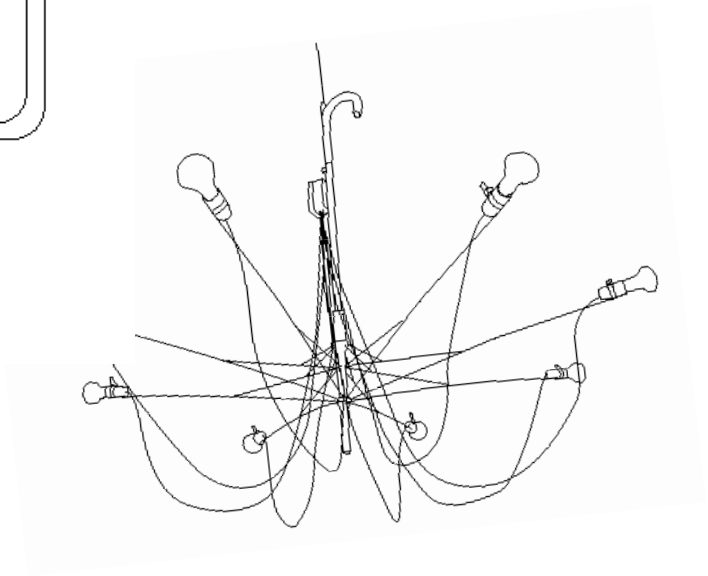
4. Drill a small hole through the handle as shown, this means that umbrella will hang vertically. Make a small loop of wire which is fed through the hole. Get your chosen Junction box and make two holes: one in the Upwards facing side and one in the downwards. Cut the larger cable to the Desired length and prepare terminals for wiring.



5. Connect the 8 smaller cables to the larger one, the diagram shows a method of doing so.



6. Hang the umbrella from a ceiling hook as desired and wire the other end of the main power cable to either ceiling or plug remember to ensure power is switched off at the ring main if wiring to a ceiling connection.



PLASTIC

WRAPPING THE WORLD

We are living in a world dominated by plastic. Take a look around. It is very clear: plastic is part of our everyday life, sometimes visible sometimes hidden, and it has become virtually indispensable.

The word plastic is derived from the Greek word plastikos meaning capable of being shaped or molded. Plastic is a relatively cheap, durable and versatile material. These properties have led to the creation of many thousands of products, which have brought benefits to society in terms of economic activity, jobs and quality of life. Plastics can even help reduce energy consumption and greenhouse gas emissions in many circumstances, even in some packaging applications when compared to the alternatives.

However, plastic waste also imposes negative environmental aspects. It is usually non-biodegradable and therefore can remain as waste in the environment for a very long time, it may pose risks to human health as well as the environment and it can be difficult to reuse and/or recycle in practice. A major concern is that giant masses of plastic waste have been discovered in the North Atlantic and Pacific Oceans, the full environmental impacts of which are not yet fully understood but which cause severe damage to seabirds, marine mammals and fish[1].

Plastics appeared very recently in the history of humanity, quite unlike traditional materials; the first 100% synthetic plastic was created in 1907. Plastic does not exist in the natural world. It is produced by synthesis. 99% of plastics used throughout the world are manufactured from oil and natural gas (naphta), obtained during the refining of crude oil and its separation by fractional distillation into different products[2].

There are around 20 distinct groups of plastics with numerous grades available to help deliver specific properties for each different application. There are 5 big plastic families: polyethylene, polypropylene (PP) ,polyvinyl chloride (PVC), polystyrene and polyethylene terephthalate (PET). Together they account for 75% of all European plastic demands[3].

Recycling 1 ton of plastic saves 7.4 cubic yards of landfill space. The number of hours that the energy conserved from recycling a single plastic bottle can light a 60-watt light bulb. In just 25 years, our consumption rate of plastic bags has grown from almost zero to our use of over 500 billion plastic bags annually … almost 1 million/min. Each reusable bag has the potential to eliminate an average of 1,000 plastic bags over its lifetime.

1 From Final report. Plastic waste in the environment. November 2010. European Commission DG ENV.
2 Plastic-energies.com
3 Plastics- the facts 2010 an analysis of European plastic production, demand and recovery for 2009. Plastics Europe. Association of plastic manufacturers


PET
BOTTLE
BAG
...YEAH
TOP BOX
SEWING KIT
PET BOTTLE PURSE

SEWING KIT

by Judith Meijer

MATERIALS
Washing powder bag

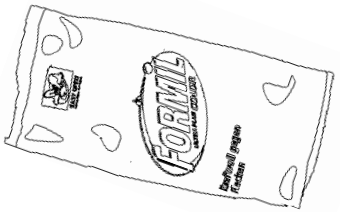
TOOLS
Scissors
ca 20 cm sticky Velcro

TIME
10 min

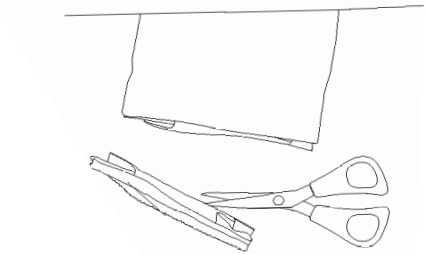
TIPS!
Besides washing powder bags you can use the same method for coffee packages, rice bags and all other packaging made from strong plastic and carton.

With a couple of staples and sticky Velcro you change your empty washing powder bag into a multi-pocket sewing pouch for needles, thread and anything else you need for your repairs. But this creation doesn't not only have to be for sewing material! This pouch can also be used for money, accessories, screws and other DIY parts. The possibilities are endless. If you like to play with confusion in function, you will not only enjoy making this pouch but also love the reactions other people have when they see it. Its a great way to start talking about upcycling.

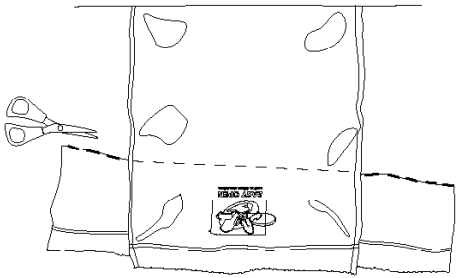
1. Clean the package of washing powder



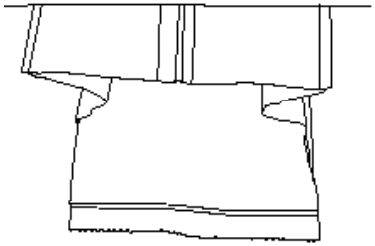
2. Cut off the bottom of the bag



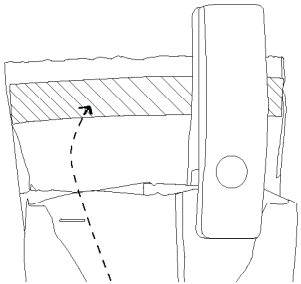
3. Cut off the plastic leaving the "flap" you want to use for closing it...



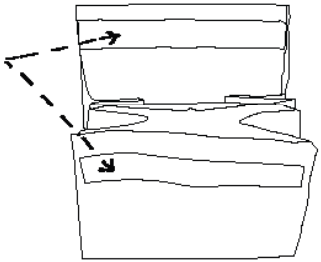
... so it looks like this when turned around.



4. Fold the package double, so that the "flap" sticks out. Staple the two parts of the package that touch togheter.



5. Attach the selfsticking velcro



PET BOTTLE PURSE

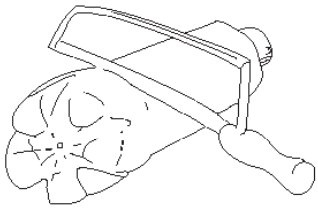
by Zitta Schnitt

MATERIALS
2 PET bottles 0,5 l
Zipper - 20 cm
Adhesive tape
Nylon thread

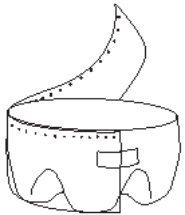
TOOLS
Knife
Small pair of scissors
Thin needle
Thick sharp needle

TIME
30 min

1. First, cut off the bottoms of the bottles approximate, afterwards cut off the excess material, along the burr with the small sissor.



2. Cut out the auxiliary construction and stick it to the edge of the cut-out bottom with adhesive tape.



3. Use the thick needle to pierce the bottom, where the auxiliary construction marks the stitching-holes with dots. For holding the needle us a combination pliers.

TOP BOX

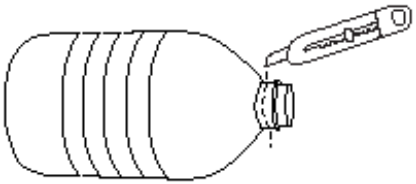
by Susana Moreno

MATERIALS
2 similar plastic bottles with top
Glue

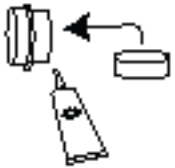
TOOLS
Knife
Small pair of scissors

TIME
15 min

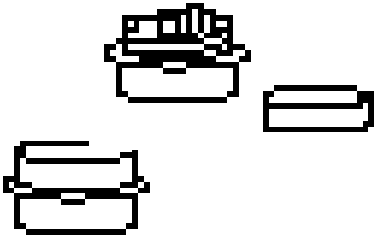
1. Cut one of the bottles near the bottleneck using the knife.



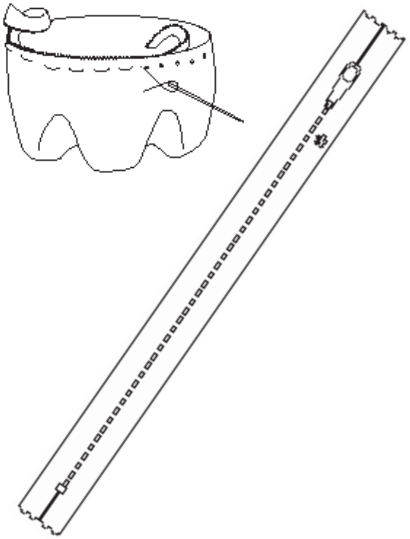
2. Take the other bottle top and glue it to the bottleneck you have just cut, in order to bring the two tops face to face.



3. Give the glue time to set and the box is finished!



4. Remove auxiliary construction. before sewing, open the zipper. Start to stich with the small needle, 3cm after the zipp-start and sew the zipper all around the first bottom. Attention! Don't complete sewing the whole circumference, before finishing, overlap the zipp-fabric end.



BOTTLE TOP BAG

by Christophe Vaillant

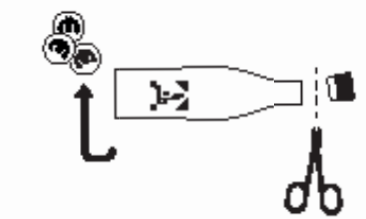
MATERIALS
Commercial banner
PET-bottles

TOOLS
Small scissors
Normal scissors
Puncher
Hammer

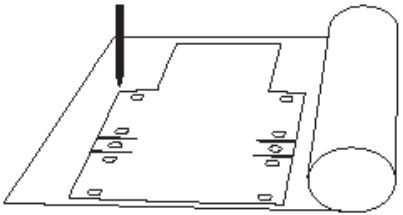
TIME
30 min - 60 min

TIPS!
Old bike innertubes works well as a handle of the bag. It can be attached with bottle tops as well. Just make a small hole with the sisscior and attach it!

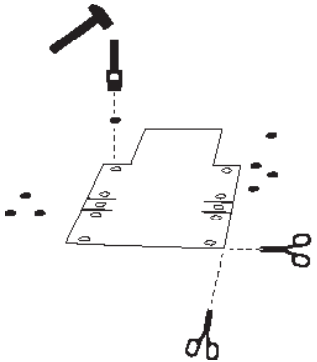
1.Cut off the very top of the bottle, just below where the lid screws on to the bottle. Recycle the remainder of the bottle and receive your money!



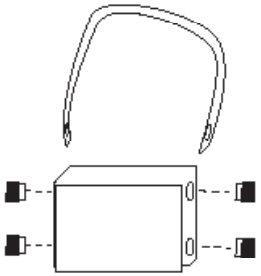
2. Choose a pattern and create a template. Draw around the template onto the banner material



3. Cut out your template from the banner material, also cutting a strip for the handle. Use the puncher to make the required holes in the bag and also at the ends of the handle. Make sure the puncher diameter is of a similar size to the bottle tops.

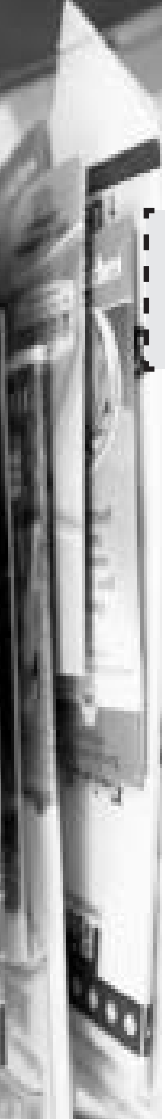


4. Assemble the bag by putting the top of the bottle inside the bag, pushing it through the hole made and then screwing the lid onto the top of the bottle. Don't forget to attach the handle!



Templates for this open source design can be downloaded at:
www.christophevaillant.de
www.upcycle.it,
www.trial-error.org

Bottle top bag workshop, Berlin



TETRA PAK

TETRA PAKS ARE PRESENT ON THE SUPERMARKET SHELVES, IN OUR REFRIGERATORS AND CUPBOARDS. THEY ARE SOME THING WE USE ON DAILY BASIS, BUT KNOW LITTLE ABOUT.

If you happen to live in a place where rubbish should be separated, there are bins for paper, metal, plastic and glass but where should tetra go? To start with, tetra is composed of three different materials:

75% CARDBOARD. Principal component, which provides the necessary strength and stiffness.
20% POLYETHYLENE. Coming from petroleum like all plastic, serves to make cardboard waterproof both inside and out.
5% ALUMINUM. Prevents the penetration of air and light thus increasing preservation.

So Tetra Pak does not fit in the paper, metal or plastic bin. Tetra Pak USA claims to have a process where they dissolve the cellulose fibers of the Tetra packages in water and reprocess them again into paper. However, the rest of the materials are just sieved off and probably hard to use for anything.[1]

The companies that produce Tetra milk cartons try to green wash their image by making eco-friendly campaigns and explaining complicated techniques to recycle the cartons. In the best case, the only recycling possible would be downcycling the cartons into non-food-containing materials because there is no simple way to put all their components back in the cycle.[2]

We often encounter very healthy and sustainable food sold in a Tetra Pak, which makes the eco conscious of us miss the point by spoiling it with more trash that will end up in landfills.

The only alternative is to use materials that are proven to be fully refillable and recyclable like glass. And as long as it's not possible we recommend to use some of the ideas we expose here to reuse the material in a creative way.

1 http://www.tetrapak.com/us/environment/recycle/from_carton_to_paper/Pages/default.aspx
2http://heartofgreen.typepad.com/heart_of_green/2009/03/tetra-paks-recyclable-green.html


TETRAPAK
WALLLET
SILVER
TETRA
DIARY

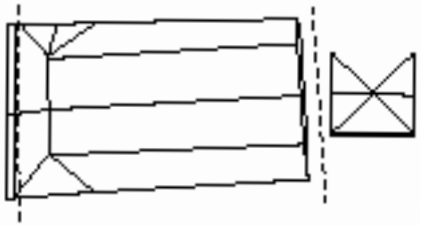
WALLET

MATERIALS
Tetra Pak

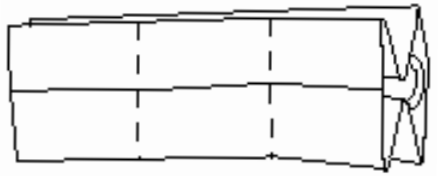
TOOLS
Scissors

TIME
15 min

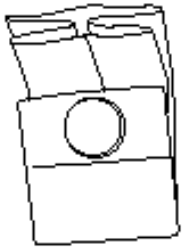
1. Cut the top and the bottom off of the tetra pak and clean it out.



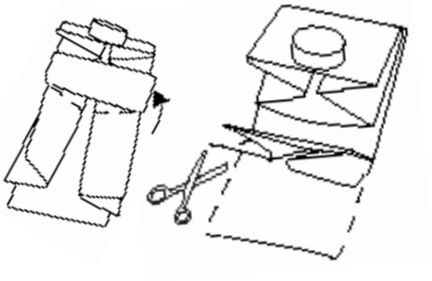
2. Flatten it and push the two long sides inwards.



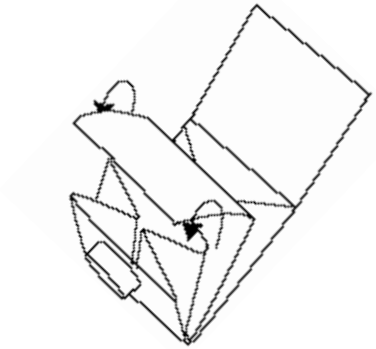
3. Fold the bottom 5 cm of the tetra pak upwards.



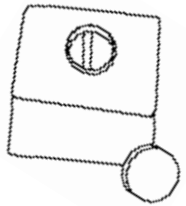
4. Cut away both sides of the top of the tetra. Now we have two layers.



5. Slip the first layer of the top into the tetra pack wallet to create a divider.

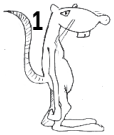


6. Mark and cut a hole on the second layer. Close the wallet and use the plastic top to close the wallet.



PUZZLE

by Judith Meijer



MATERIALS

Hard cardboard, paper or leaflets
Bottle tops

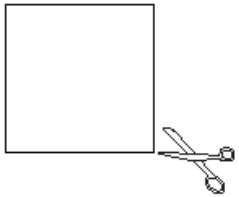
TOOLS

Scissors
Glue gun and paper glue
Pencil

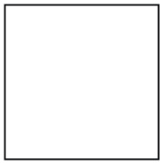
TIME

15 min

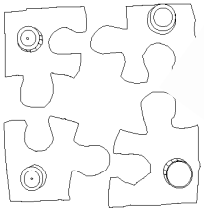
1. Cut a rectangular piece of cardboard and glue a picture from some packaging or leaflet on it.



2. Turn the piece of hard cardboard upside down and draw the outline of four –or more- puzzle pieces. Cut the pieces out with scissors or a Stanley knife.



3. Attach a bottle top to every correct side of the puzzle to allow you to move the pieces.



SILVER DIARY

by Susana Martinez

MATERIALS

2 tetra paks
Blank paper
Tape
2 pieces of string

TOOLS

Scissors
A ruler
A hole punch

TIME

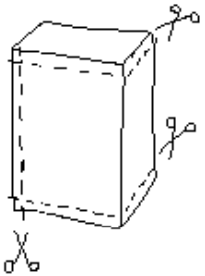
30 min

LUXURY TETRA

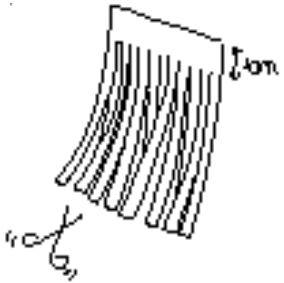
Tetra Pak's are a common waste product from our homes. They are difficult items to treat when recycling, as they require a special process to separate the aluminum from the cardboard. It is not only a complex recycling process, but manufacturing process and if we add the costs involved in the manufacture of this container, it is worth thinking twice before throwing it away.

In this project we will use the Tetra Pak's in reverse, on the silver side, giving an aspect of "luxury". You'll soon forget what it is made from!

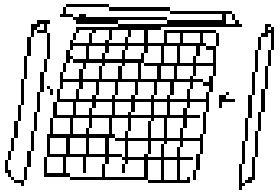
1. Cut open the Tetra Pak's and cut out four pieces that are 19 x 15 cm.



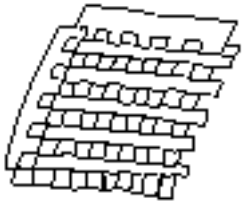
2. Cut into strips that are 1 cm wide, but stop about 1 cm from the top so they are still joined together.



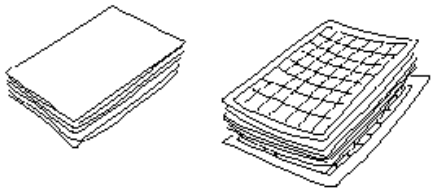
3. Separate into pairs and weave them together.



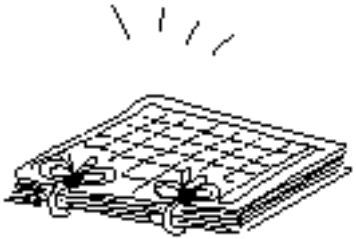
4. Cut the bits off that join the 1cm strips and tape around. Both of these pieces will make the back and front cover of your diary.

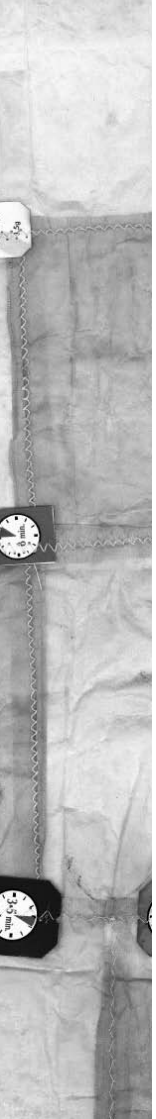


5. Cut your blank paper to the same size as the back and front cover.



6. Join together using the hold punch and pieces of string.





BIO WASTE

After cutting up your vegetables to prepare dinner, eating a piece of fruit during your lunch break or drinking a cup of tea to relax after a busy day, there are always left overs that end up in the garbage: biowaste.

According to 'The biowaste directive; at the core of sustainability…but at the border of the political agenda[1] there is a distinct and obvious gap in European law when it comes to the biowaste sector: there isn't yet a comprehensive strategy to process all the biodegradable trash. The production of biowaste is still too high to compost it within the existing infrastructure. Therefore, instead of creating renewable energy with it, a big part of the waste ends up in a landfill.

It is not only unfortunate that people waste their time and energy to separate their biowaste, it is also contributing to the greenhouse effect by producing harmful gases. The methane gas that is generated as organic materials decompose is 23 times more potent than CO_2[2]
Legislation should change to prevent this from happening in the future but for the moment we can change the way we look at our own biowaste and take responsibility for what we throw away. Our waste might not always come to rest in the big compost heap so let's create our own samll ones in back gardens, balconies or within community gardens and use it for gardening, projects and growing food.

Another way to create compost out of your food and garden waste is by using worms. It is proven to be faster and more nutrient productive than normal composting3. There is a place called Worm City where you online can order a Wormery for as little as 50 euro, including 500 grams of worms.

Not all biowaste is destined to end up as compost, some can be upgraded before degrading; used ground coffee can be used as body scrub, apple peel can be used in aromatic tea, orange peel can turn into candle holders and teabags can transform in lampshades. This upgrading asks for a change of perception of waste and seeing it's possibilities like Zero Waste Europe[4] catches: "Waste doesn't exist "per-se", we create it when mixing our discards. If our discards are separated they are not waste but a resource."

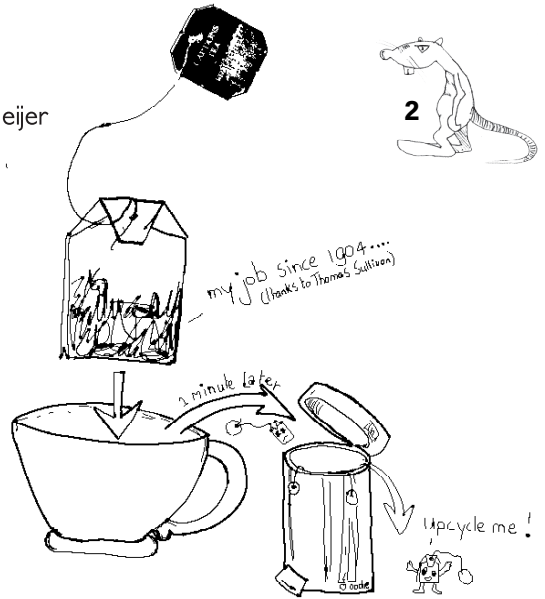
1. The biowaste directive; At the core of sustainability... but at the borders of the political agenda
2 Earth Day 2010 www.calrecycle.ca.gov/PublicEd/EarthDay/What.htm
3. www.scribd.com/doc/20630657/What-is-a-Wormery-and-How-Does-One-Work
4. www.zerowasteeurope.eu/

TEABAG PRODUCTS

Photo by Tau*mh

TEABAG FABRIC

by Judith Meijer



MATERIALS
20-30 Teabags + Tags
Thread
Metal

TOOLS
Sewing machine

TIME
2 hours

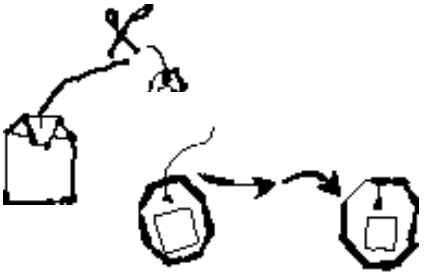
TIPS!
If you do not have a sewingmachine, you can easily attach the teabags to eachother with normal paper glue. You can also print on the teabags, to make your fabric even more personal.

TEABAGS
From teabags you can make a nice fabric. You can use it to make many things. A lampshade, a curtain, books…..

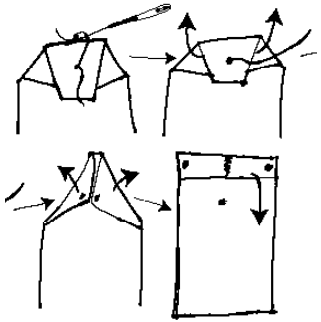
What will be your design?

1. Don't throw away your teabag - let it dry or wash is out directly including step 2 and dry it over a washing line. If you wash it you use more energy, and the colour of the teabag will be less interesting.

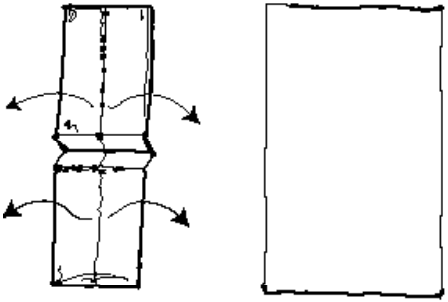
2 Cut the tag.



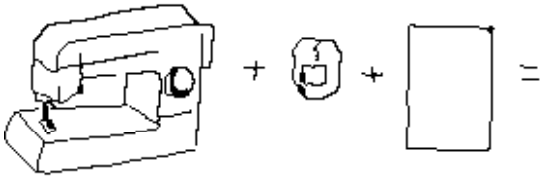
3. Open the teabag by the seam.



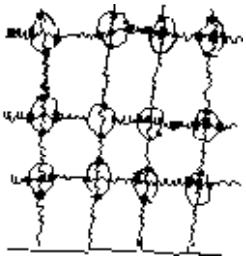
4. Flatten the rectangular piece of teabag fabric .

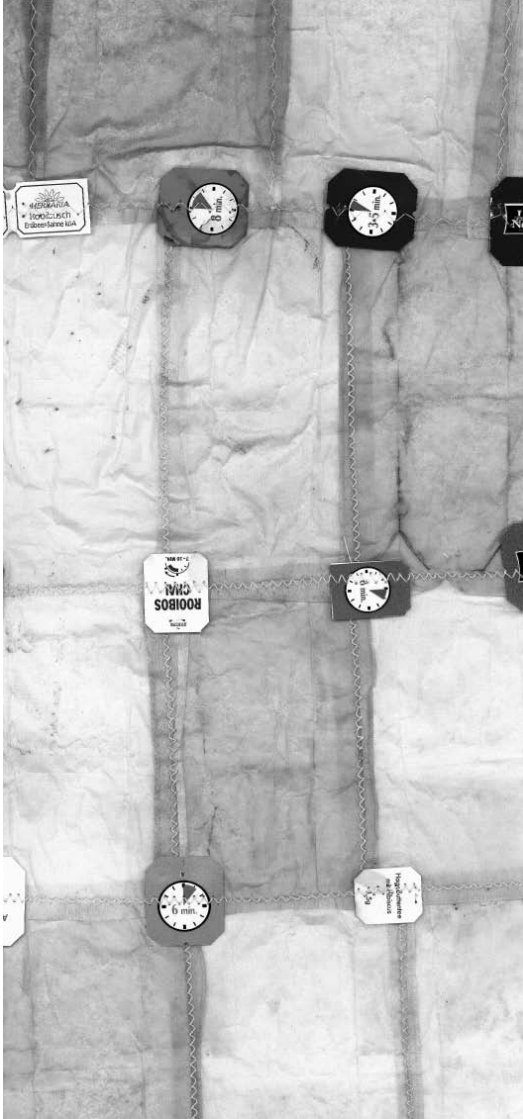


5. Zig-zag the pieces of teabag fabric together in long strips of 7 pieces. When you have two stips sew them together and make the structure stronger by putting a teabagtag on every corner.



6. Redo this until you have the size you need for your design.





BANANA LEATHER

by Alice Morey

EXPERIMENT

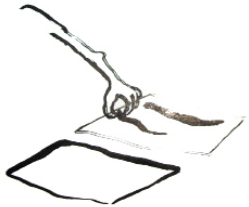
1. Eat pleanty of banans.

2. Save the skins.

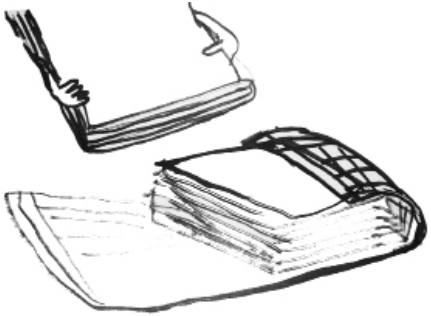
3. Gut the inner flesh, use a spoon.

4. Soak in salty water for thirty minutes.

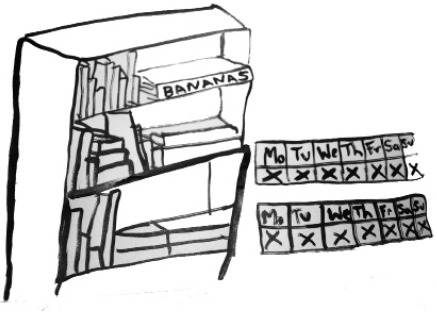
5. Flatten, once dried and place between several sheets of paper, make layers like a sandwhich.



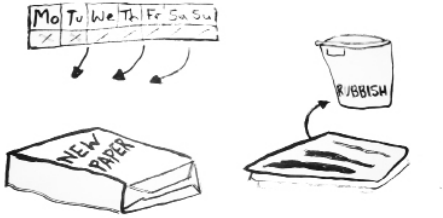
6. Wrap the layers in a tea towel and flatten with a heavy book.



7. Leave on the bookshelf for two weeks.



8. Change the papers layers every day twice to prevent mold.



9. Once dry, choose a pattern and sew together

TEXTILE

MADE BY NATURE GO NAKED!

Synthetic fibres, produced in chemical plants, make up the majority of textiles. The majority of the remaining textiles are made from cotton and other natural fibres such as wool, silk or hemp have a much smaller production.

The raw material of fabrics like polyester is crude oil and the melting and spinning of polyester, polyamide, acrylic and other synthetics, require twice as much energy as cotton. During the last ten years new technologies emerged enabling us to use renewable resources like corn for fibre production.

COTTON

The biggest producers of cotton are China, India, USA, Pakistan and Brazil. Though a natural and renewable resource, cotton fields use up to half of all irrigation water of all global agriculture.
Since clothes are mostly woven or knitted yarn, the idea in improving textiles is in interweaving or intertwining different kinds of fibres together and adding chemicals to them. This makes it really hard to consider the material individually in order to recycle it.

There are several processes in fabric production that pollute the environment. For example the water coming from textile colouring facilities or the chemicals used to ensure that a hiking jacket has bright colours, breaks wind, is waterproof and does not smell of sweat.
Fabrics are not only damaging the environment, due to lack of information on the use of hazardous substances, regulations on accepted models for toxicological tests on textiles still remains to be constituted. But every now and then some toxic substances are found in clothes, for example traces of plasticizers in the print on children's pyjamas, or toxic resins used in the production of bras that can cause really bad allergic reactions.

GARBAGE

Every brand and every collection, or even every single kind of textile product, differs in its chemical structure. For that reason it is not possible to throw all fibre waste into one mill to recycle it. In order not to lose the individual qualities, each kind of fibre would have to be recycled without being mixed with other fibres at all.

Throwing things away is an easy option as one does not have to worry about things one does not see anymore. One of the eco-friendly alternatives is composting textiles: Cradle-to-Cradle and the German company Trigema, have invented a fabric that can be used in compost, therefore enriching the natural surroundings after the shirt's life ends. Although, the best way to reduce textile waste is to stop clothes shopping so much!


FRINGE SCARF
GROCERY BAG
LAPTOP CASE

GROCERY BAG

MATERIALS
An old tank top t-shirt

TOOLS
Scissors
Sewing machine/needle and thread

TIME
10 min

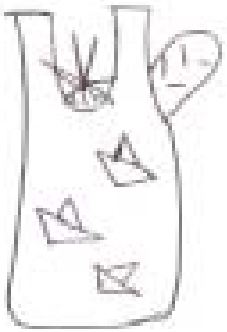
UPCYCLE A T-SHIRT

A t-shirt is one of the most ubiquitous items of excess clothing you can find in any closet and they have a lot more potential than most people realise. You can remake a T-shirt simply by adding buttons, dying, attaching a handmade brooch, weaving in ribbon or cutting off the sleeves or the neck. Here follows 4 easy projects to upcycle an old T-shirt.

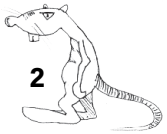
1. Turn the T-shirt inside out and pin the bottom of the T-shirt along the hem.

2. Sew the bottom of the T-shirt.

3. Turn the t-shirt inside out and you have your grocery bag.



LAPTOP CASE



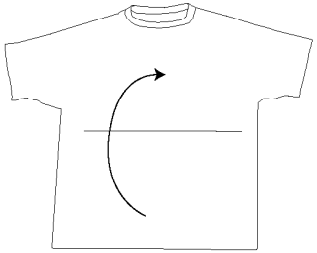
MATERIALS
An old t-shirt

TOOLS
Scissors
Sewing machine or needle/thread

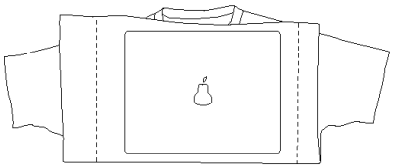
TIME
10 min

TIPS!
If you put a thick material between the two layers of the T-shirt before you fold it the laptop case will be stronger.
You can sew a zip or put a button on the top of the laptop case to close it.

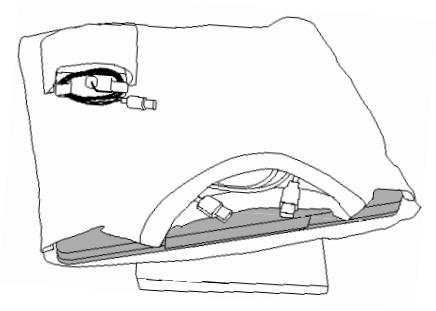
1. Fold the t-shirt in half, so that the bottom seam is on top of the neck seam.



2. Put the laptop on top of the folded T-shirt. Sew both sides together leaving a 1 cm border from the laptop



3. Remove the excess sleeves on both sides. Turn the T-shirt inside out.



COZY PILLOW

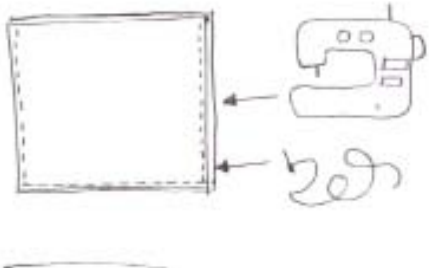
MATERIALS
An old t-shirt

TOOLS
Scissors
Sewing machine / needle and thread

TIME
10 min

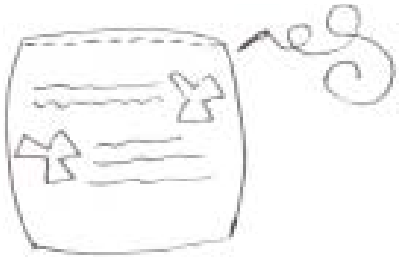
1. Turn an old t-shirt inside out and cut into a square.

2. Stich around the three sides of the t-shirt. Turn it inside out.



3. Stuff it.

4. Close the seam with a whip stitch and you have a pillow.



FRINGE SCARF

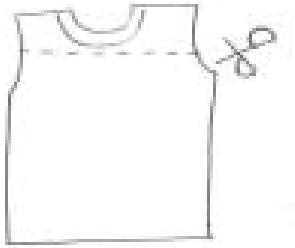
MATERIALS
An old t-shirt

TOOLS
Scissors

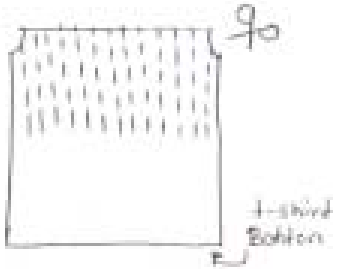
TIME
10 min

1. Take an old T-shirt and cut off both sleeves.

2. Cut the top of the T-shirt off, just below the neck line



3. Cutting from the top to the bottom, create strips that are approximately 1.5 cm in width.



4. Pull each individual fringe strip. This will stretch the fringe, creating length.

PATCHWORK PILLOW

by Sarah Käsmayr

MATERIALS

Fabric trash e.g. old clothes, blankets, curtains etc
Thread
Pillow

TOOLS

Scissors
Sewing machine
Optional: roller cutter, cutting mat, ruler

TIME

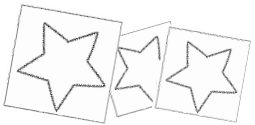
This will take 1 to 2 hours, depending on the size and pattern.

TIPS!

If you want you can add fleece underneath the patchwork on your pillow top and make step lines (quilting) as you like e.g. diagonal through the squares or you can create crazy patterns all over.

PATCHWORK DESIGN

The design of your pillow cover is entirely up to you and you can create very interesting and unusual covers. You can make a unusual patchwork by using completely different fabrics i.e thickness and textures. or if you want a more homogeneous look, use fabrics that are similar in thickness and texture. If you want to add further interest to your cover, you can attach shapes of a different fabric to the squares, using a narrow zig zag stitch to secure them. This is called appliqué.

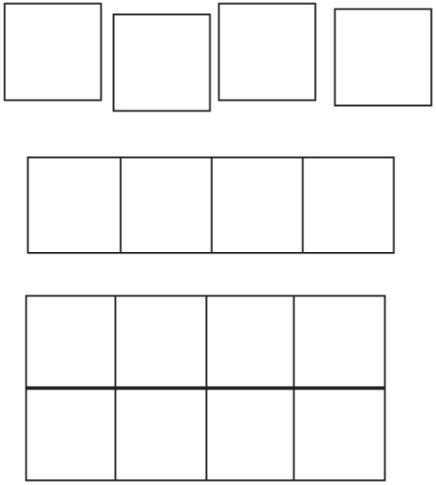


1. Take your pillow that you wish to make a cover for and decide on the appropriate size of the squares, adding a 1cm border to allow for sewing together. For example, if the pillow is 40x40 cm, you can cut 16 squares 12x12 (including seam allowance).

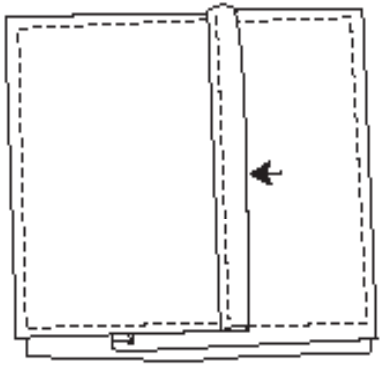
2. Cut your fabric trash into squares of the appropriate size. If you have bigger pieces of fabric trash it is easier to cut the fabric into strips and then in to squares. If you don't have a roller cutter, cutting mat or ruler (the utensils which are used by "professional" patchworkers) make a square template out of cardboard. Draw the outline of the template on the fabric and cut the squares out with scissors.

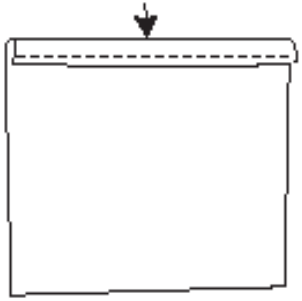
3. Play with the fabric squares and decide how you want to put them together.

4. Start sewing: Take 2 neighbouring squares, put the right sides of the fabric together and sew along one side with the seam allowance of 1 cm using the straight stitch of your sewing machine. It is easier if you first sew the squares together into rows and then sew all the rows together. Make sure you have an iron handy, as to create a more accurate pattern, you can iron the 1cm seam allowance into each row on both sides. When it comes to sewing the rows together you can match the seams perfectly.



5. Attach the front and back cover by using a zip, a flap or buttons. You can make a flap by cutting two pieces of fabric that are both 2/3 the size of the pillow, so that in the middle they will overlap. Make sure you seam the sides of the fabric that are not attached to the front cover to prevent fraying. Pin the two flaps to the front cover, right sides together and sew, leaving 1 cm. Turn inside out. Insert the pillow. Finished!





TOOLS

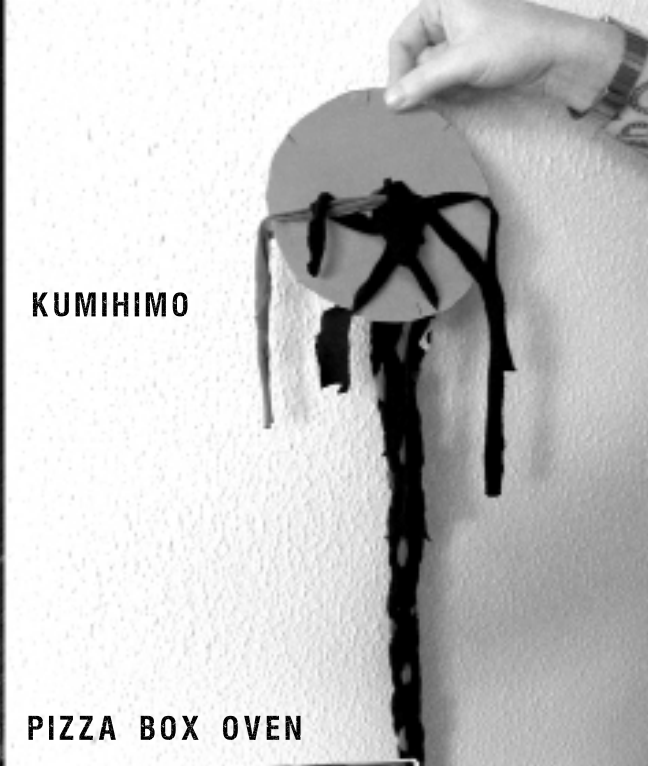
MAKE YOUR OWN TOOLS

To be able to make interesting objects you will need tools to work with. It may be a sewing machine, a drill or a saw. Some tools are pretty easy to make yourself and can be made out of things that you find. As inspiration we gathered a few ideas for tools you can make yourself - so that in the future you can knit with your own knitting equipment, vacuum form packages to new shapes with your own homemade machine or a small box to heat a pizza to eat while working outdoors on your weaving skills with the home made maya loom.

MAYAS LOOM

KNITTING TOOLS

VACUUM MOULDING



KUMIHIMO

PIZZA BOX OVEN

KNITTING TOOLS

by Maria Perez, Susana Moreno

MATERIALS
Wooden sticks

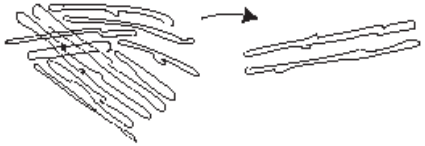
TOOLS
Sandpaper,
Saw
A pencil sharpener

TIME
10 min

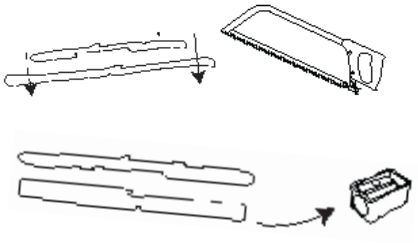
WINTER BEACH

The idea for this manual came about in order to merge two great activities that at first seem very different: going to the beach and knitting. The beach is generally associated with summer: sea, sand, sun and warm weather and not as a resource for a workshop. Nowadays, you can find many items on the beach which are able to be upcycled. You can use old t-shirts and other garments you may find on the beach to make yarn.

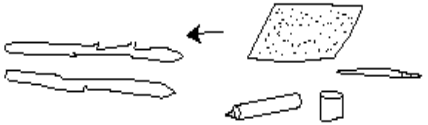
1. Choose 2 sticks of a similar thickness (The wider the sticks, the bigger the stitch).



2. Using the saw, cut the sticks to the same length. If the sticks are thin enough, sharpen one end of each stick with a pencil sharpener.

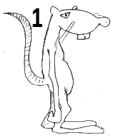


3. Sand and decorate your new knitting needles as you like.



PIZZA BOX OVEN

by Judith Meijer



MATERIALS

1 pizza box
Aluminum foil
1 sheet black paper
1 plastic sheet
Roll of tape
Glue
Drinking straw

TOOLS

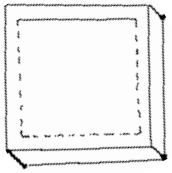
Scissors
Ruler
Pencil
Stanley knife

TIME

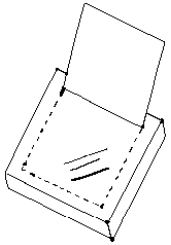
30 min

The oven can reach temperatures of 275 degrees. Use it on a warm and sunny day, double the cooking time of any conventional method and preheat your oven for about half an hour.

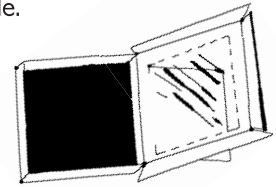
1. Draw a square on the top of the box. Cut along the lines, except for the one parallel to the back. Open the flap to create a window.



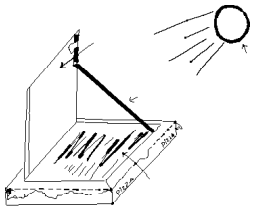
2. Cut the plastic sheet a bit bigger then the window and attach it with glue to the inside of the box.



3. Cover the inside of the box and the flap of cardboard sticking out with aluminum foil. Make sure all holes and gaps are covered with aluminum foil. Cut a piece of black paper the same size as the bottom of the box and lay it inside.



4. Close the box and attach the straw to the flap, so the flap is open and stands up at about a 60 degree angle. The sun needs to shine on the aluminum foil and reflect it into the box.



KUMIHIMO

by Susana Martinez

MATERIALS
A piece of cardboard

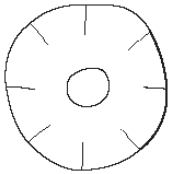
TOOLS
Scissors
7 strips of material

TIME
5 minutes

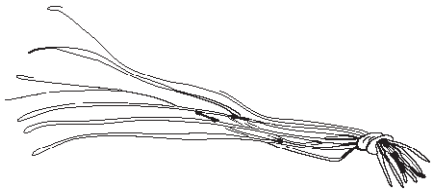
TIPS!
The 7 strips of material can be from old fabric, plastic bags, old video tapes, etc. There are a lot of different ways to braid using this tool. To make the simplest kumihimo cord we need 7 strips. For this project we have used strips 0.5 cm wide. ou can make many things with kumihimo cords, bracelets, keychains even a scarf. For the scarf: we made 7 cords of 130 cm in length and sew them together.

THE KUMIHIMO TOOL
Kumihimo is a method of braiding silk threads developed in Japan which is traditionally performed on special wooden stands called Maru Dai and Takadai. The literal translation of kumihimo means the "coming together (kumi) of threads (himo)". Kumihimo braids were originally used as ties, cording, belts for clothing and closures for Samurai armor. The braids are durable and beautiful and have patterns that are formed by varying the sequence of thread movements while creating the braids. Nowadays we can create kumihimo braids out of many different fibers other than silk and by using a small and handy tool: the portable Kumihimo circle with 32 cuts.The idea of this activity is to preserve the old tradition and to promote the reuse of waste materials such as cardboard and old clothes.

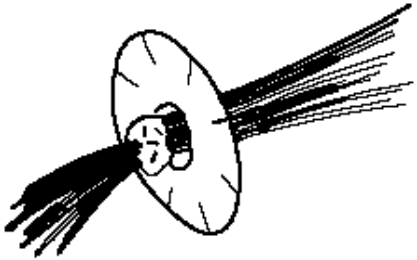
1. Cut a cardboard disk with a diameter of 4 cm and with a hole in the middle. Make 8 indentations along the edge of the circle. Your kumihimo is ready for braiding.



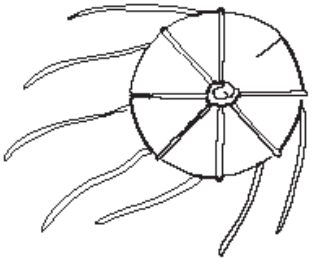
2. Cut the strips ofo material. Tie the 7 strips together with a knot.



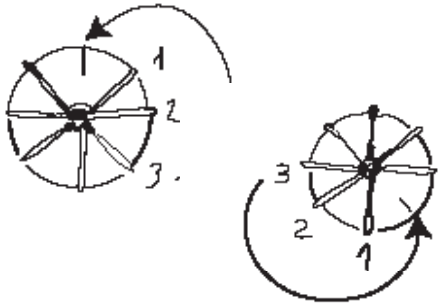
3. Pass the knot through the hole in the centre of the kumihimo.



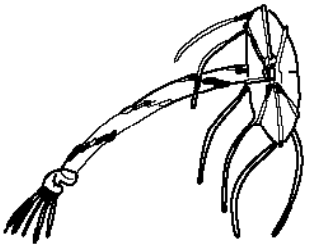
4. Put each strip into the each indentation of the circle.

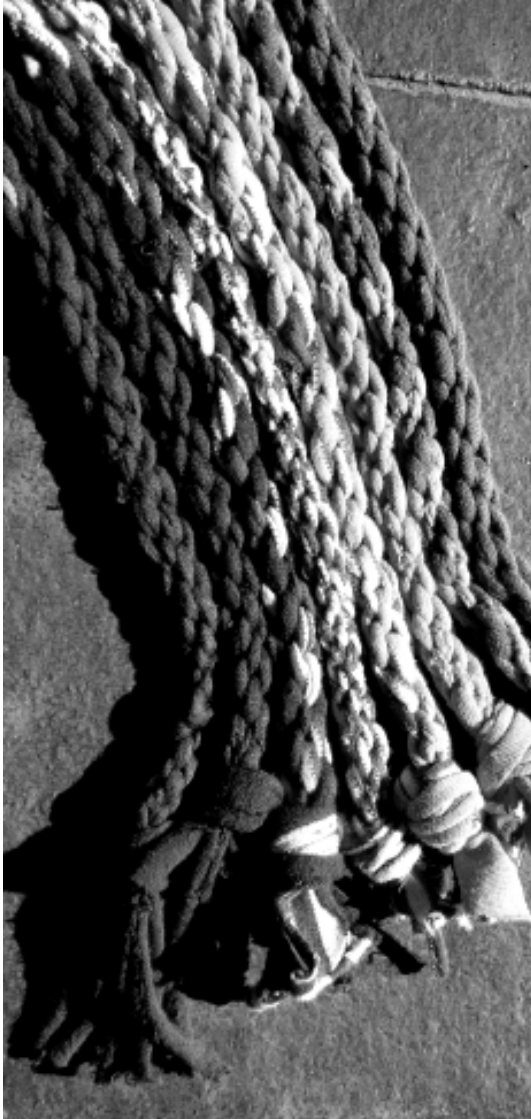


5. Move the third strip to the free intendation.



6. Move again the third strip to the free intendation. And again and again... and here it is, your first kumihimo cord!





MAYAN LOOM

by Susana Martinez

RE-DISCOVERING THE MAYAN KNITTING TRADITION

MATERIALS

Used food can
Sticks (Any kind of sticks will do, tree branches, bamboo sticks, ice pole sticks. They have to be hard enough to support the tension of the yarn.)
Duct tape
Yarn

TOOLS

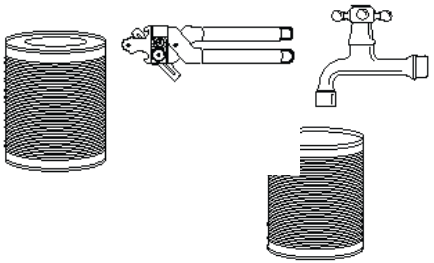
Can opener
Saw

TIME

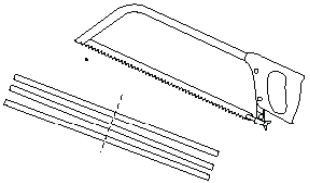
TIPS!

It's much easier to work with the loom if the yarn is loose.

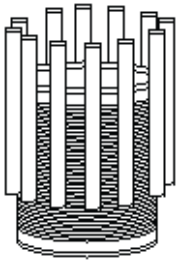
1. Open the can with the can opener at both ends. Make sure the can is clean.



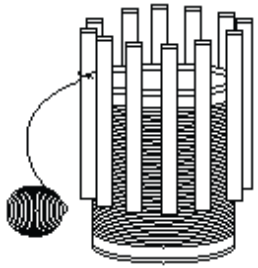
2. Cut all the sticks to a similar size. They should be long enough to be stuck to the exterior of the can and they should to reach 2 to 3 cm over the end of the can. How long depends on the kind of yarn and how big the can is.



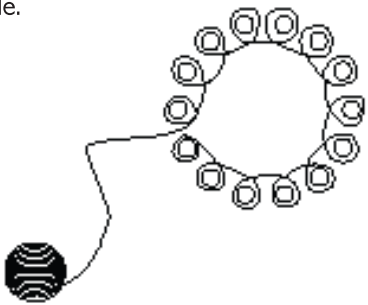
3. Tape the sticks on the exterior of the can. The amount of sticks you need depends on how big or small you want your stitch to be. The closer together the sticks the tighter the weave, and the further apart the sticks the more open your weave will be. You can experiment with the number of sticks, until you find the weave you like.



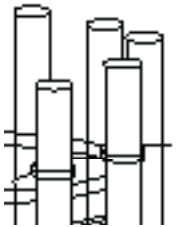
4. Tie the end of the yarn to one of the sticks.



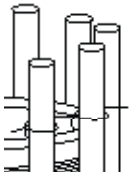
5. Circle one stick with the yarn. Start from the interior of the stick – the side closer to the inside of the can and let the yarn cross once. With the same yarn, move on to the next stick and circle it again from the inside to the outside and back inside.



6. Circle all the sticks one full round and then a whole other full round, until you have 2 lines of yarn surrounding each stick.



7. Now go back to the stick where you started and lift the lower string of yarn over one the head of the stick and inwards into the can. After this movement there will be only one line of yarn around every stick.



8. Repeat this on every stick and you will see that all the strings will have formed a little tangling inside the can: it's the knitting! Circle again with the yarn every stick until all of them have to lines of yarn again. Proceed from step 7. From bottom of the can you will see the knitted tube appear slowly. Make it as long as you wish!

Using the maya loom!
Knitting workshop,
Asturias

VACUUM MOULDING

By Christophe Vaillant

MATERIALS

Thermoplastic sheet material PS/PP:
- PS Polystyrene or PP Polypropylene sheet material, about 1 mm thickness

TOOLS

Vacuum cleaner
Vacuum-box: Wooden box with holes (optional size of holes)
Oven or chicken-grill
Frame
Stapler
Cutter

TIME

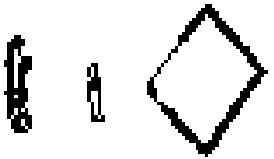
To build the vacuum former:
2 - 4 hours
To use the vacuum former:
5-10 min per piece

1. To make your homemade vaccum forming machine, you need an oven, a vaccumcleaner, a small wooden box with holes, which can be connected to the vaccumcleaner. A wooden frame in the size of the w

2. Connect the vaccum cleaner to the custom made wooden box with holes, and place it close to the oven.

3. Make a model of the shape you would like to vaccum mould. When finished, place it on top of the box with holes.

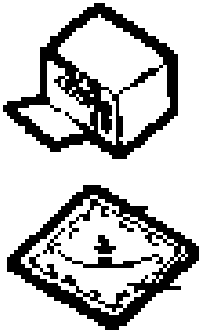
4. Cut the thermoplastic material to the size of the frame.

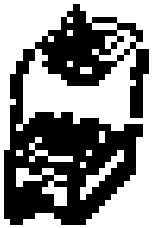


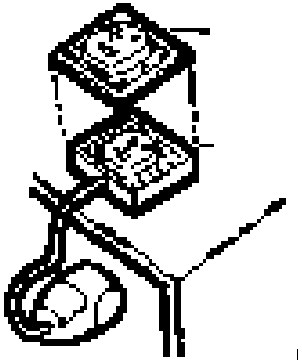
5. Place the thermoplastic sheet on top of the frame and attach with staples. Heat it inside the oven until it becomes soft.

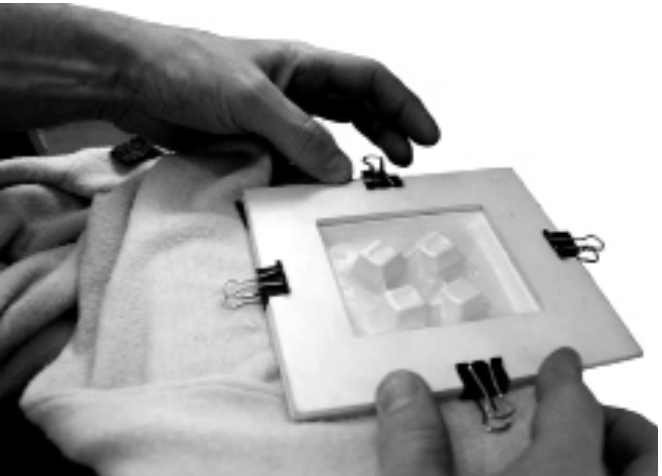
6. Take the frame with the thermoplastic sheet out of the oven and place it over the mould.

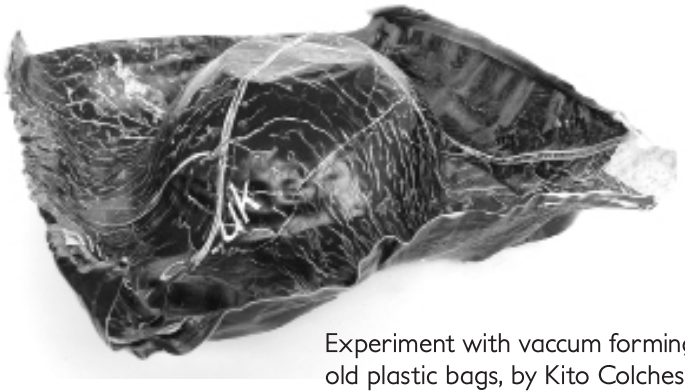
7. Turn on the vaccumcleaner, vaccumform the plastic. Your object is copied!







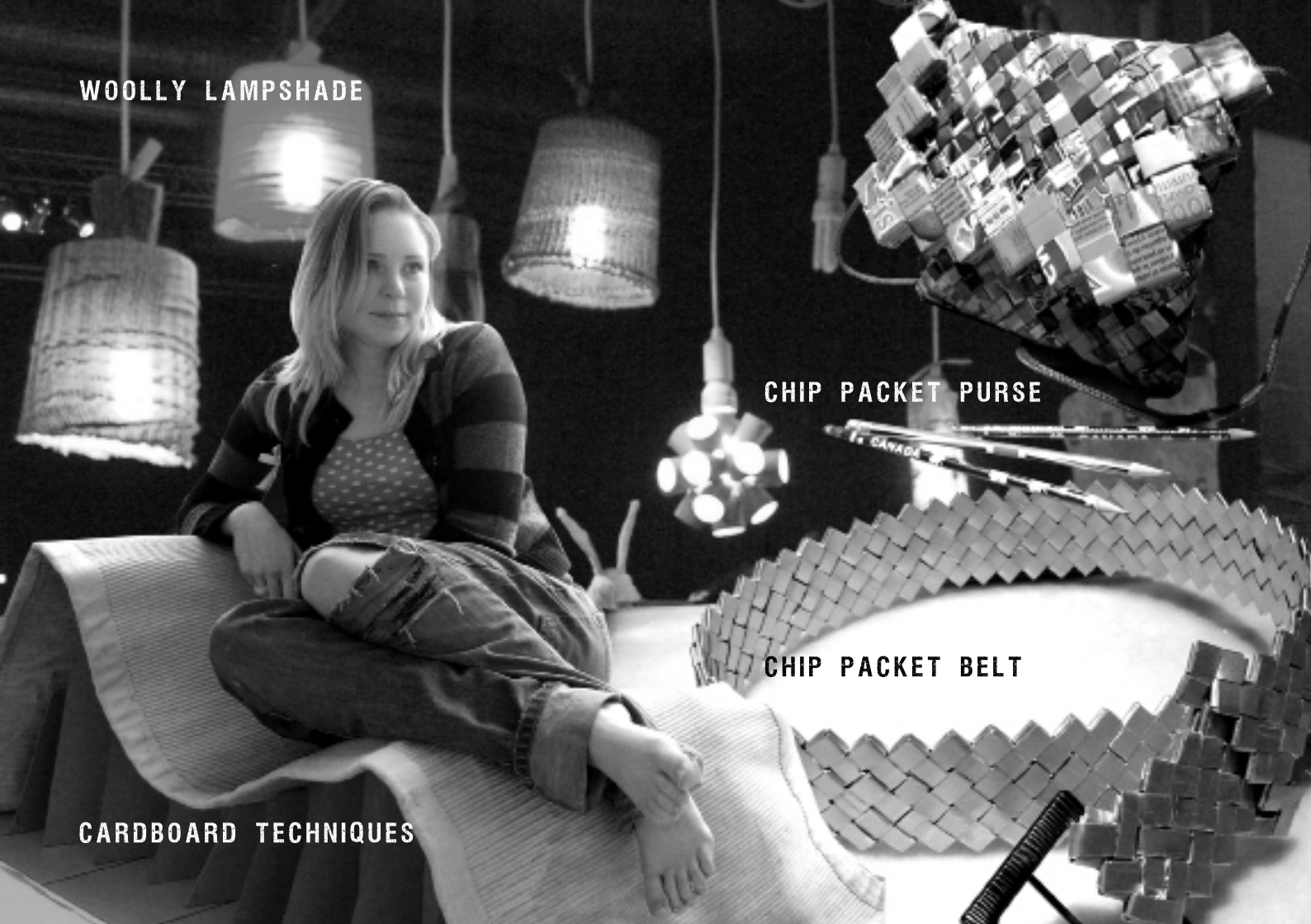




Experiment with vaccum forming old plastic bags, by Kito Colchester

TECHNIQUES

In this chapter you will find a few techniques that will be useful when upcycling different materials. Using these techniques you can make your own cardboard furniture designs, weave belts and purses out of crisp bags, make strings from plastic bags to make plarn (plastic yarn) to weave, knit or crochet with or even try cooking your own bio-degradable plastic and make lampshade designs or create new materials (mix it with paper, woodspoons, textile e.t.c.). Use your imagination and play, experiment and invent!


WOOLLY LAMPSHADE
CHIP PACKET PURSE
CHIP PACKET BELT
CARDBOARD TECHNIQUES

CHIP PACKET PURSE

by Susana Martinez,
Elena Fernandez

MATERIALS
Bags of potato chips
Heavy thread

TOOLS
Scissors
Sewing needle (large)

TIME
2 Hours

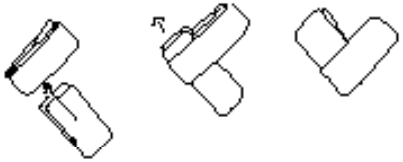
TIPS!
You can also make a needle for plastic out of card. This is to avoid piercing the packets.

1. Cut the bags into 100 x 45 mm pieces, or proportional measurements.

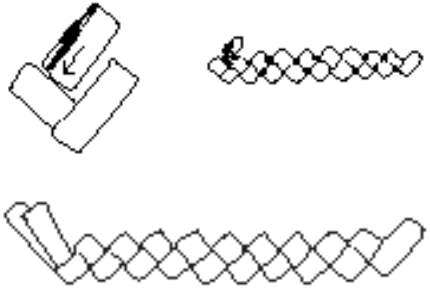
2. Fold each piece

3. Keep folding as shown

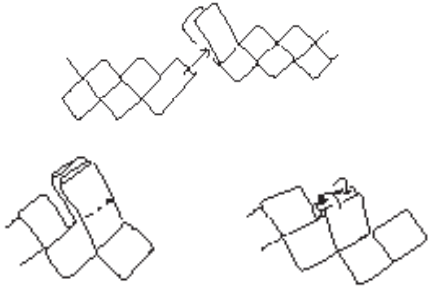
4. Put each piece into the next one



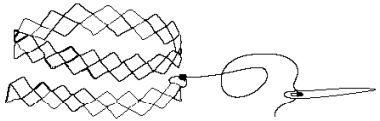
5. Make a strip, for a small purse you will need 4 strips of 21 cm.



6. Turn each strip into a ring by placing the last piece of the strip unfolded and then joining it to the first piece. Be careful as this is a delicate step!



7. Once we have turned all the strips into rings, you have to sew them together. Start by tying a knot around a piece



8. Join two of the rings together. Follow the path of the needle as shown. Make sure the thread is always within the folds.

9. The bottom of the purse is sewn the same way, but by sewing it together. You can finish it with a zip, velcro strip or with a flap.

PLARN

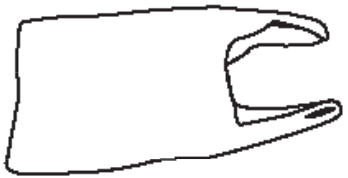
MATERIALS
Plastic bags

TOOLS
Scissors, knitting or crochet needles (optional)

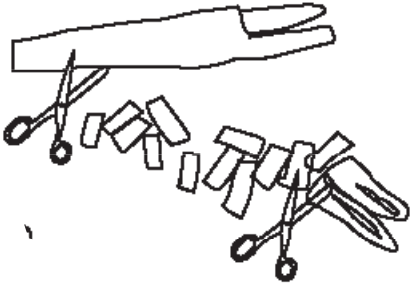
TIME
10 min per 4 meters

WHAT IS PLARN?
Yarn made out of plastic is known as plarn. It is suitable for knitting, crocheting and weaving. The best plastic bags to use for this purpose are the thin types, which are easily folded. Its highly recommended that you don't buy single use plastic bags, because they are a very common waste. Ask your friends as they will probably have some that they can provide you with immediately. At least enough for making one lovely, long-lasting, new knitted plarn bag!

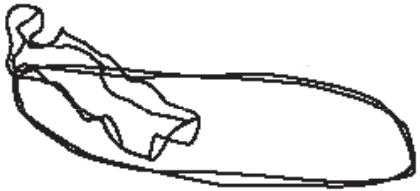
1. Make sure the plastic bags do not have any holes, are clean and flattened out.



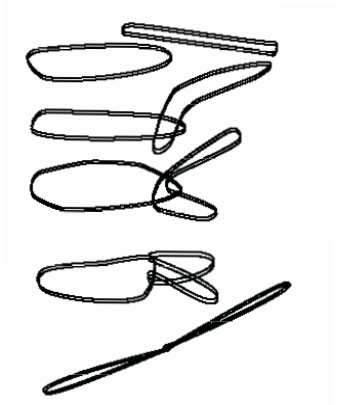
2. Fold the plastic bag into one long strip and cut strips that are 1-2 cm wide.



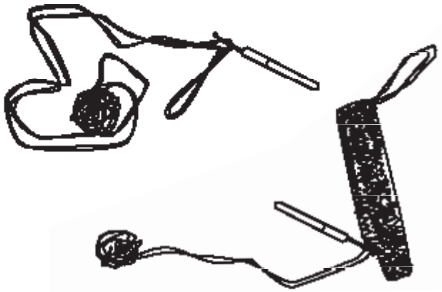
3. Open each strip and you will find that it is a ring. Run these strips through your hands to condense it, making it look more like string. Do not apply too much pressure when doing this otherwise the strips will break! Repeat the process with several pieces.



4. Attach the strips together, as shown in the diagram.



5, Roll up your plarn, and start to knit, crochet or weave your product!



WOOLLY LAMPSHADE by Open Design City

MATERIALS
An old jumper
Cooking oil
Starch (corn, potato, rice, etc.)
Vinegar
Water

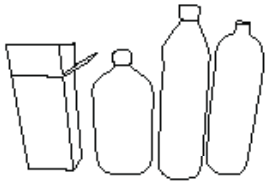
TOOLS
Mould of your choice (a bucket, a bottle, anything you like)
Hob
Wooden Spoon
Saucepan
Pair of Scissors

TIME
35 min cooking
1 day drying in the sun

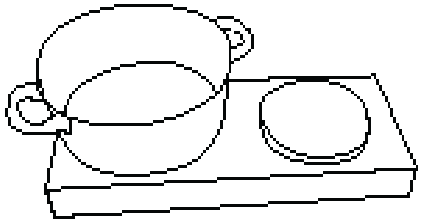
TIPS!
When choosing a mould, keep in mind that you need to be able to remove it from inside of the shade once dry.

WOOLLY
The Woolly Lamp Shade is made from upcycled textiles and bio plastic that can easily be made in any household kitchen. Product is for use with a 15 Watt energy saving bulb. You can design many different lamp shades, as almost anything can be used as a mould! The Mould should be secured, preferably to a string, in order for it to be covered easily by the bio plastic mix and wool and for the drying time.

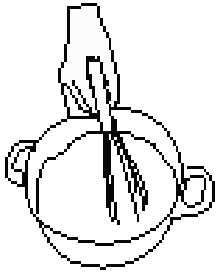
BIO PLASTIC RECIEPE
14 parts water
3 parts starch
2 parts vinegar



1. Mix 14 parts water, 3 parts starch and 2 parts vinegar in a saucepan.



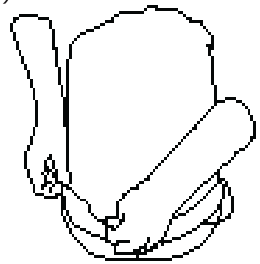
2. Heat until it forms a gooey consistency. Allow to cool. To speed up the cooling process, after heating the mixture, take a larger saucepan and fill it half way with cold water and place the saucepan with the mixture into it.



3. Cut sleeve off jumper, saturate the sleeve with the combined ingredients. Make sure that the wool is completely saturated with the bio plastic mix, this will ensure that the form is rigid when dry.

4. Apply oil to mould (note: mould must be lubricated, if not then cover with cling film, even a metal mould will stick with oil).

5. Stretch sleeve over mould. Allow to dry (1 - 4 days, depending on fabric and climate).



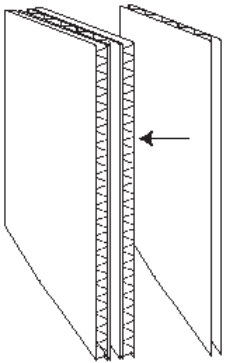
6. Remove from mould and cut to shape. The lamp shade can be easily secured to the power cable with a clothes peg.

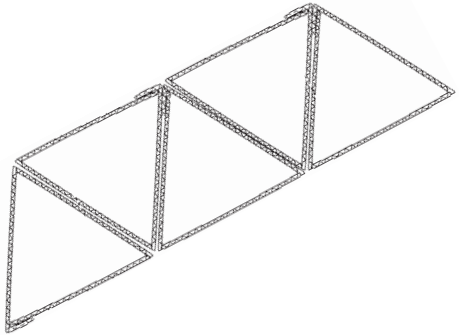
CARDBOARD TECHNIQUES

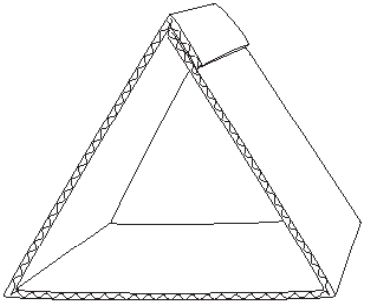
HOW TO USE CARDBOARD

Here are some techniques, which are useful to know of, when making bigger constructions such as furniture out of corrugated cardboard.

1. The first and most basic option is to simply laminate multiple layers of cardboard together. The advantage of this technique is that as you add and glue layers together you alternate the direction of the corrugation so you end up with a material that is strong in both directions, similar to plywood. You can use PVA glue to join the layers. Once the card is laminated it can be cut out with a jigsaw and used like wood.



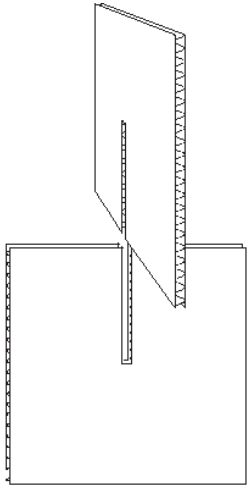




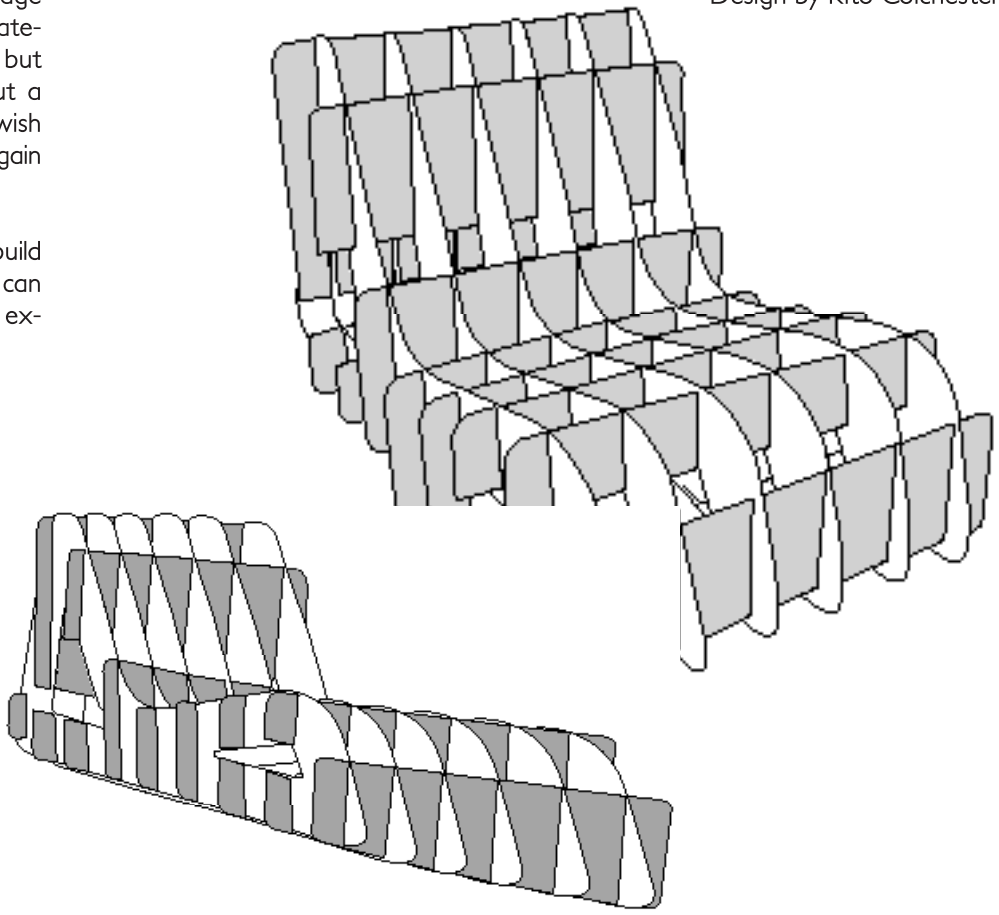
2. The second technique is less established but yields original results. It utilises the strong structural properties of the triangle to create structures strong in many directions. The bigger the triangles the less material is needed, but the less strong the structure will be. Staples and glue combined are a good way to create strong prisms. Alternating prisms with longer and shorter sides allows for curved structures.

3.The third technique has the advantage that no glue and considerably less material is required. It is also very strong but only in certain directions. Simply cut a slot half the height of the card you wish to join in the top of one piece and again the bottom of the joining piece.

With this technique it is possible to build for example a reclining chair which can fold flat and slide under a bed. See example to the right.



Design by Kito Colchester



WORKSHOP

Organizing your own workshop is easier than you think and it is a great way to find people, who are interested in sharing ideas, re-using materials, inventing and spreading knowledge! During the upcycle it! - project we held many workshops and some worked better than others. Here you will find a small guide based on our experiences which you can use to help to set up your own workshops.

"festival de andar por casa" Avilés, Asturias

BEFORE THE WORKSHOP

Think about what type of workshop you would like to hold. Make sure you know what your main motivation is – it might be to find new collaborators, make new designs, make objects according to manuals, to create awareness about waste and consumerism or to experiment and get to know new materials. Think about the potential target group of your workshop and try to be prepared for their different expectations, objectives, abilities and previous experiences. What will the group already know? What will be difficult? What skills could be missing? What skills could you share with the group? Prepare the set up according to the needs of your target group.

Work on promotion. Make an invitation with the date, time, location and a short description about the workshop. Spread it through your network, similar organizations and through the local community. Don't forget that social networks can provide quick and easy promotion. Think of where your target group would usually find information.

Find a good location. Hold the event in a hub or a community place which already has its own exsisting network.

This way you can reach people that would otherwise not know about your workshop. Promote the event within the network of the location. Make sure there are tools and easy access to the materials you will need. If you plan on using special equipment find a workshop place that already has that equipment, such as a bike shop, a school, a wood workshop or a community space. You can also organize the workshop together with some food, a movie night, a cozy tea event or a wild trash hunting evening. This make others more interested in the event.

"If you can not find the process, you ARE the process..."

the lost one

Collect and prepare materials you will need and organize the space before people come. Make sure there are enough tables and chairs and don´t forget about tools. If you need to buy things, make a shopping list in advance and keep in mind that you can borrow things or ask people to bring things you need. If you work with manuals, make sure they are printed and easy to understand.

Picknick workshop
Kunststoffe, Berlin

DURING THE WORKSHOP

Welcome the participants and give them a short explanation about upcycling, the concepts, reasons and about the objectives of the workshop. Make sure everyone feels well and knows what will happen – if the workshop is to experiment without much restrictions – make sure that everyone understands this and make sure that people feel free to ask questions. It is good if the workshop is very open. It might also be good to have a few easy manuals of objects people can make as not everyone has the courage to experiment freely.

Create a cosy group atmosphere. Prepare a simple game to help participants introduce themselves and get to know one another in a funny way. Try to be open to suggestions and helpful. Take into account the needs of the group. Bring some snacks, music, tea and coffee or even food if it is a long workshop. Make sure people feel free to take breaks when they want.

You can always show examples of possible outcomes to help the participants to come up with ideas. It will definitely help if the group does not have previous experience, and need to overcome fears. You can also bring inspiring books or show a movie.

If you plan to make many workshops make sure there is some kind of documentation which you can then use to promote your next event. Make sure that the group is comfortable with a camera before taking photographs or video. Even if people don't want to be photographed themselves, they often have no problem with you documenting the objects they created. Make sure you collect peoples contact details so you can invite them to the next workshop or if it is good for the group, share the contacts so that everyone can contact each other. Enjoy the process! - Positive vibes are contagious!

AFTER THE WORKSHOP

Clear up and sort out the materials that has been left for future workshops. Make sure that the location where the workshop is held is left the way you found it. Thank the volunteers, friends and people from the venue for their support and find a short moment to evaluate with them about the workshop. Send the participants of the workshop the photos and a link to your blog if you post it on the internet. This way more people will know about the results of your workshop. Finally have a rest to get ready for your next one!

UPCYCLED FARM

By Mara Linnemann, farm Elst, the Netherlands

I live in a space that is created by trash. Trash from industrial sites and farmers, supermarkets and neighbors. Trash that inspires a change of lifestyle. Everyday we use creativity to transform these materials into useful objects for the farm. Our Farm is a upcycled project from the tiniest detail.

It all began a few years ago when a group of people squatted a building that had been standing empty since the previous owners were bought out by a project developer who wanted to build new houses. Now I live here with a group of people, building the living space with only used-material.

The most common material we use is old (pallet) wood. Collected from the industrial area or saved from the container. The wood is used to build almost everything: rooms, floors, walls, fences, stairs, tables, beds, benches and even a cocktail bar. What we don't use for building we burn in our woodstoves, to keep the building warm.

If you have the space, you can collect a lot of useful stuff like glass windows, bikes, doors, metal pieces or stones and it's possible just to ask around. Some material just comes to us, people bring it themselves because they think it's a

pity to throw it away. For example, we put a sign next to the road asking for stones and through this method we collected enough stones to make little walking paths through the garden.

The farm building is surrounded by gardens and this is what gives us food in the summer. We share the land with people from the area and they grow their own vegetable gardens. We also have a deal with a local bakery and we receive bread that was not sold on the previous day. Where there is no possibility for a deal, we take food from the supermarket dumpsters. I consider thrown away food an unethical waste and not a criminal act to give the product a second life in our kitchen, sometimes making a big dinner not only for the people the farm, but for everyone who comes to eat with us.

It's amazing to find old and used materials as source of inspiration - everyone here makes his or her little things: decorations, clothes, jewelery or music instruments. The best moments are when we solve a problem with non conventional stuff and it works.

Somehow it seems strange that it is possible to live from what other people see as trash, while in other countries around the world people don't have even half of it. Even if living like this is profiting from the waste of the capitalist system, we still hope that it will all change and instead of wasting energy to create trash, we will spend it to create a sustainable way of living.

Goat house made out of pallet wood and re-used bricks.

SUSTAINABLE SCHOOL

By Zulema Cadenas

How can we develop a sustainable lifestyle? There are many ways of developing this kind of lifestyle, but one of the best ways is through raising children in a sustainable environment, prone to reduce, reuse and re(up)cycle. This can happen in the family, neighbourhood, town or school.

We came across a perfect example of one of these schools in Llanes, Spain. It is a rural school located in a small village close the sea and surrounded by mountains and meadows. Immediately after passing through the main door, you feel that you are in a special place where small things are important and planned with care.

Once you enter a classroom you quickly discover one of the best kept treasures of the school: Trash. In one of the corners all the waste is organised to facilitate children and teachers use them in daily activities. On daily basis all the waste produced at school is kept, cleaned and organized to enable its later use to create games, toys, costumes, sculptures, disguises and anything else that is needed.

By doing this, children understand how much waste we produce and how much value it has if we use it properly. In the process they have a lot of fun!
You can follow our work in the blog www.reciclandoenlaescuela.com.

D.I.Y. AND SUSTAINABLE CONSUMPTION

By Corinna Vosse

"I often regret it when something is thrown away. On the one hand, because of the handwork skills that were used to make something, such as turned wood pieces from chairs or such, that are then simply thrown away. And on the other hand, because the material could also be used for other things."

Excerpt from interview with Rollf, August 2009

Why do some people ride their bike, bring a bag for their groceries, repair things instead of buying new ones or buy organic food? What are their motivations and why do they actually follow consumption patterns that provide more sustainable ways of covering their needs, though this often means spending more money or undertaking extra effort?

The following article proposes that practising forms of subsistence and DIY brings out and advances patterns of sustainable consumption. In order to understand in what way practising DIY and subsistence has an influence on peoples attitudes, some empirical research was conducted. The research design sees DIY as dependent on certain external parameters as well as on certain attitudes, as shown in the following figure 1.

Data was generated using qualitative interviews and photo documentation. To find interview partners, a call was distributed via email amongst swap circles, trash artists, reuse designers, urban gardening groups, activists and environmental groups.

In addition, notes were posted to address less internet based practitioners, especially elderly people, e.g. in centres for adult education, in cultural centres with workshop spaces, in centres for senior citizens hosting craft circles and in volunteer centres. Photo and interview sessions were realized with 20 practitioners.

"Put a pile of stuff in front of me and I believe I simply have strategies to recognize what I can do with this, what I can do with something else, or how the things can be put together again, can become one again. (…) It surely has something to do with an attitude, but it also has something to do with skills."

Excerpt from interview with Rainer, August 2009

In one way or the other, the practitioners that were interviewed all considered themselves creative. Confidence was expressed to find solutions on the spot, utilizing what is available rather than relying on purchasing new materials.

While this affinity towards making is described as an attitude, skills are seen as required as well, and are being acquired all the while. People described a whole variety of sources to access knowledge. More importantly, they explained how this knowledge about materials and processing changes the way of dealing with things and shifts the attention.

To conclude, there is evidence that the acquisition of knowledge about material properties and about how things can be made influences attitudes towards production and consumption. Even more, it is likely to have an effect on actual consumption patterns, leading to more sustainable consumption choices that take into account environmental and social impacts of certain behaviours and purchases. Supporting self help and subsistence can contribute to the spreading out of more sustainable consumption habits.

This thesis is based on a pilot study the author undertook in 2009 in Berlin / Germany and Hong Kong / China.

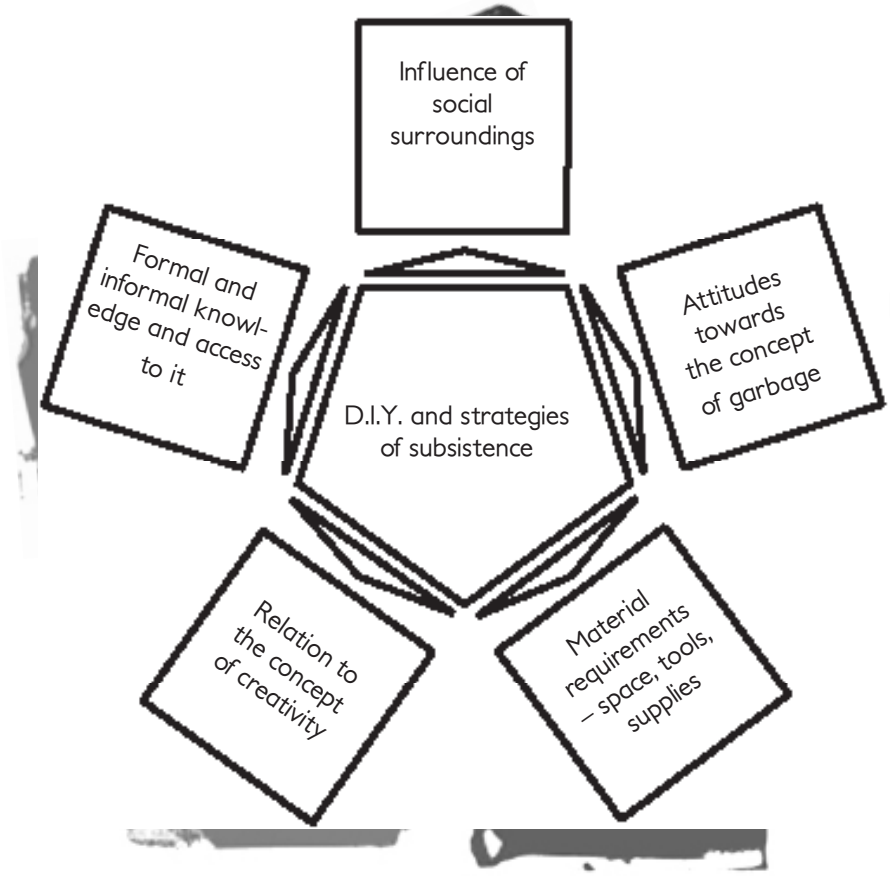


FIGURE 1. Interpersonal and structural factors explaining degrees of involvement with DIY and strategies of subsistence

THE COMMONS VS. ECONOMIC GROWTH

By Christophe Vaillant

Is it possible to live without money?
For almost everything we need in life, we have to spend money and most of our lifetime we have to work for it, that is the simple truth of our reality.

The money we earn is based on the concept of growth. Economic growth, as we are constantly reminded in radio, newspapers and TV, is good. It stands for the wealth of a society, it represents quality of life and is an measurable index for the living conditions of the citizens.

For social challenges and crises, like dropping wages, the rising costs of healthcare or uncovered pension funds, there are not many remedies against it but to ensure economic growth. Constant growth, preferably at high rates, is good for everybody, and as we hear this mantra we already know: this can't be the only solution and it can't go on forever! Why? It doesn't work. This is simply because a system based on unlimited growth cannot work in the limited world we all live in.
Let's conclude: excessive growth rates are good for investors and financial markets and are destructive for the rest of the world, following the principle of privatizing profits and socializing the harmful impacts.

How can we sabotage the growth-machinery? What can we do against it?

The concept is to take goods and services and whatever needs you have for your life, out of the monetary system and transform it into common goods. It doesn't matter how far we get, but what does matter is starting the process. The Commons, as a noncommercial zone, can help to make a transition from a profit oriented consumer market to a need oriented market. It can help to cover needs without money, like harvesting fruit that are growing naturally.

How can we build a commons zone? How can we feed the commons?

There are already many initiatives going in that direction, like hackers and DIY-practitioners. As technologies and tools evolve, more and more possibilities emerge to democratize the production of anything needed in life.

Reclaim wealth without money, in contrast to many future scenarios: paradise is not that far!

IDEAS FOR SUPPORT OF THE COMMONS

Set up wikis and blogs with platforms on the internet it's possible to collect knowledge and refine it step by step in a open and free way.

Open design practice: Share your own ideas with others and in return use the ideas of others. Open up the process of designing, making it a participatory process.

Participate in DIY-culture: build your own things, document it and post it in the internet to show others how to do it.

Share knowledge and exchange of expertise. Let other people build upon your knowledge and you, build upon the knowledge of others.

Hack consumer goods, use products in a different way then companies intended.

License your creation under creative commons license. That way, companies can not privatize and lock up your creation, it remains in the commons zone

Upcycle trash, make objects considered to be garbage valuable without money.

These steps sound like small steps in a big process, but if people start taking these steps they will have a hugely positive impact.

DISLOCATED BODIES

By Bitxo

Mainstream culture is notorious for producing an unbelievable amount of waste. It casts aside anything that is seen to be of no use and ugly. Anything that does not fit with the social imagery of that particular time is eliminated or erased. There is no place for anything except the conformists image of 'beauty'.

There are people who do not fit into mainstream culture for a number of different reasons: economical, ideological, social and physical, for example minorities, radicals, people with disabilities, the unemployed, the old, transgender etc.

But you will always find rebel and disobedient waste happy to be put apart from the mainstream, proud of being part of the "social trash".

These rebels are chaotic members of society, fighting for their right to not to fit, mutants claiming the beauty inside of the social bin.

You can have a look inside an artistic project around this idea on: Croqueta-congelada.blogspot.com and flickr.com/b_i_t_x_o. You will find dislocated bodies inspired in the "Frankens-tein" concept, created with parts of other bodies. These parts are put together to create hybrid creatures that are totally up-cycled.

DEAR READER,

this is the end of the book, and we would love to see it serving like a treasure map for your, or maybe our joint journey in the Upcycling world! All the hugs, warmest greetings and positive wibes to the people, without whom this project wouldn't happen - the initiatives, who hosted the workshops, advisers, who helped to get through project administration, creative minds, who shared their knowledge and skills and especially all the participants of the workshops, who where not afraid to jump in the upcycling experiments to make shoes, shelves, baskets, clothes and much more!

We would love to hear Your ideas for upcycling, especially experiences in following our story of upcycling, using the manuals from the book and the video manuals from the website www.upcycle,it, Your suggestions for improvement of the upcycling tips, If You are inspired to join our community, Your own ideas, tips, video manuals for upcycling are more than welcome!

We are open for cooperation in future projects. If You would like to help us to spread the book, there is possibility to support the project with time, materials, or donations.
You can find us on the blog www.upcycle.it, or via email: berlin@upcycle.it (in German, or English), or asturias@upcycle.it (Spanish, English)!

Viva la upcycling!
the Upcyle it! Crew

PROJECT PARTNERS

SPAIN

RECICLANDO EN LA ESCUELA
www.reciclandoenlaescuela.
blogspot.com/
reciclandoenlaescuela@hotmail.com

EUROPA AQUI
Oficina de Movilidad Juvenil
Internacional de Avilés
Avda. Fernando Morán, 26
33400 – Avilés – Asturias
europaqui@gmail.com

ASOCIACION CULTURAL YOUROPIA
C/Victor Chavarri 19, oficina 17
33001 Oviedo
youropia@gmail.com

BERLIN

OPEN DESIGN CITY
Prinzessinnenstr. 19-20
10969 Berlin
opendesigncity.de/

WELTRAUM
Ratiborstr. 4
10999 Berlin
kiezwandler.de

THE KEY TO
International event for green fashion,
sustainable lifestyle & culture
thekey.to

IDA NOWHERE
Donaustrasse 79
12043 Berlin
ida-nowhere.com

MACH MIT MUSEUM
MACHmit! Museum für Kinder
Senefelderstr. 5/6, 10437 Berlin

RECYCLED CREATIVITY
Art festival
recycledcreativity.info
info@recycledcreativity.info

KUNST-STOFFE E.V.
Berliner Str. 17
13189 Berlin
kunst-stoffe-berlin.de

LA54 OLD BREWERY
landsberger54.org
- Richard sorge gallerie
kunstraumrichardsorge.org
- Art space concrete
on.fb.me/lXlnRS

ESPACIO PARA LA GESTIÓN DE INÉDITOS VIABLES **Ye Too Ponese**

trial& error KULTURLABOR

JUGEND für Europa
Deutsche Agentur
für das EU-Programm
JUGEND IN AKTION

living europe

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

EDITING
Elena Suarez
Maria Perez
Judith Meijer
Julia Vernersson
Ruta Vimba
Susana Moreno
Zulema Cadenas

PROOFREADING
Tara Mclean

LAYOUT
Julia Vernersson
Sandra Wiesthal

ILLUSTRATION
Kito Colchester

COACH
Cecilia Palmer

YEE TOO PONESE
info@yetooponese.net
www.yetooponese.net

KULTURLABOR TRIAL & ERROR E.V.
email@trial-error.o.rg
www.trial-error.org



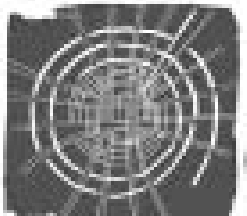
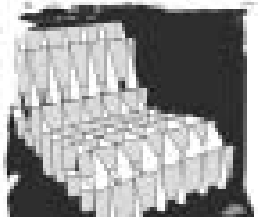












guide, cookbook, book, trash, alkemi, rubbish, scrap, litter, junk, garbage, **trash**, waste, rubbish, future, creative, innovative, survival, (survival guide), map, tools, toolkit, practical, D.I.Y., design, ideas, knowledge, new, products, process, recipe, collection, selection, starting, point, start, beginning, start, develop, transformation, you can make it, **creative**, upgrade, make the most of, creative hands, makers guide, change, generator, objects, reuse, new point of use, trash lover, trash formation, transition, transferring, resources, community, share, evolution, sustainable instructions, manual, handbook, guide, cookbook, book, trash, alkemi, rubbish, scrap, litter, junk garbage, trash, Waste, rubbish, future, creative, innovative, survival, (survival guide), map, tools, **toolkit**, practical, D.I.Y., **design**, ideas, knowledge, new, products, process, recipe, collection, selection, starting, point, start, beginning, start, deve-lop, transformation, you can make it, creative, upgrade, make the most of, creative hands, makers guide, change, generator, objects, reuse, new point of use, trash lover, trash formation, transition, transferring, resources, community, share, evolution, sustainable instructions, **manual**, handbook, guide, cookbook, book, trash, alkemi, rubbish, scrap, litter, junk garbage, trash, waste, rubbish, future, creative, innovative, survival, (survival guide), map, tools, toolkit, practical, D.I.Y., design, ideas, knowledge, new, products, process, recipe, collection, selection,starting, point, start, beginning, start, develop, transformation, you can make it, creative, upgrade, make the most of, creative hands, makers guide, change, generator, objects, **reuse**, new point of use, trash lover, trash formation, transition, transferring, resources, community, share, evolution, sustainable instructions, manual, handbook, guide, cookbook, book, trash, alkemi, rubbish, scrap, litter, junk garbage, trash, waste, rubbish, future, creative, innovative, survival, (survival guide), map, tools, toolkit, practical, D.I.Y., design, ideas, knowledge, new, products, process, recipe, collection, selection, starting, point, start, beginning, start, develop, transformation, you can make it, creative, upgrade, make the most of, creative hands, makers guide change, generator, objects, reuse, new point of use, trash lover.