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Glitch Textiles -The Symbiosis of Technology and Material

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ABSTRACT:
GLITCH means a sudden, usually temporary malfunction or fault of equipment. Is the Beauty in Faults and Mistakes? The world of Glitch textiles shows us just that. As with every mistake comes the beauty of learning so too the glitch textiles created by Phillip Stearns the father of Glitch textiles. It started with the intersection of textiles and Digital Art. It Trans code glitches in the cold, hard logic of digital circuits into soft warm textiles resulting in and art that bridges the virtual and the real world of textiles. The patterns in the blanket are made using binary codes usually from short circuited camera and other digital techniques and data visualizations. The result is a beautiful visual treat of abstract Art. With results so accurate that they can be reconverted back into binary codes of 0's and 1's. The Art form can be transferred easily as numbers the image is then opened in textile software called the Ned Graphics a soft ware and information technology, where the numbers are reconverted back into their original color palette and weave. Blankets are patterned from images created intentionally by breaking cameras and created by using raw binary data converted to images.
Why is the human mind so attracted to Glitches???
Technology has become a party of human race today and so the mind of the 21st century can identify computer imagery and can relate to understanding it presence. It is an imagery of what man has surrounded himself with. The huge scope in developing this art form from architecture to clothing to wall painting and designing accessories , shoes, bags jackets and all forms of apparel.
Designers are now looking up the virtual word for inspiration. Italian tile brand Bisazza's 2014 collection, Affreco is a colourful mosaic by Paola Narvon that features a pixelated interpretation of a traditional floral motif.
The techniques we used to have in previous Jacquard , Dobby , Clip spot , burnout , etc is a very lengthy , slow , time consuming and expensive process This fabric or clothes made from this woven fabrics are not easily affordable by common man. Glitch has came up with new and highly technical idea of converting jacquard or dobby design patterns using binary numbers make the work more efficient , accurate , speeding up of work and cheap at the same time.

INTRODUCTION:

With "slow" and "handmade" currently being buzzwords in the fashion industry, the concept of "machine made" isn't exactly very trendy right now. Because this are meant to be for mass but not for the classes' .However, more designers are pairing creativity and responsible practices with technology to create truly special innovations within the industry.
In this our main focus is to show case the contribution of Phillip Stearns of Glitch Textiles industry, came up with the idea of the knit and woven fabric designs are created using the data pulled and translated from various machines such as computers and digital cameras. Essentially, he has taken binary code straight from a computer, and using color and weave structure, visually translated it into a textile pattern.
In December 2012 Brooklyn based artist Phillip Stearns tried to explore the avenue of textiles and digital art what resulted was codes which were translated in warm textiles forming an connect with computer technology and woven imagery.

Glitch Textiles is a collection of blankets both woven and knitted of images translated from short-circuited camera and unconventional digital technologies and data representation using digital forensics. All methods of robotic weaving and manufacturing is done in the US.

BINARY GLITCH TECHNIQUE:

Glitch Textiles taking binary code straight from the computer and using colour and weave structure has visually translated into a textile pattern. Stearn's fabric is inspired by the physicality of machines and fabrics .The knit and woven fabric designs are created by the data taken and translated from computer. The resulting textiles are abstract designs of colour and texture. The results are so accurate that the woven fabrics can be retranslated to its original data form. A conversion key is located at the back of each key. In order to create pieces, binary data in its basic state(code made up of 0's nd 1's)is converted into an image using customized software the image is then opened in textile software called the Ned Graphics, where a colour palate and weave structure is created to mirror the original image. For this illustration 8 colours were chosen to be woven in different satin weaves . With this information developed, a loom file is create and the piece is woven.

NEDGRAPHICS:

The software technology company more widely used in civil engineering , town planning and spatial data management It has widespread application in Engineering, Aviation and Government.

JACQUARD AND JAQUARD PRO:

With the use of Ned Graphics Jacquard pro complex of Jacquard patterns can be invented and stimulated and manufactured directly to the looms. Complex patterns can be calculated. The Jacquard is a toned down version of the original Jacquard pro and more cost effective.

The range of products can be from towels, to home furnishing, labels; velvet etc. #D visualizations reduce actual sampling time and help view the product. There is library to refer to for weaves, loom designed and viewing layouts and other options which can be quickly accessed and edited.

HIGHLIGHTS AND FEATURES OF NEDGRAPHICS IN JACQUARD LOOM:

1. Actual viewing of the weave structure and fabric design
2. Traditions weaves and be replicated easily
3. Scan and upload yarns of your choice.
4. Easy access libraries to create and store material
5. Easy generation of warp and weft
6. Production samples are created instantly .
7. Editing floats manually and electronically
8. Convert to and from any weaving machine.
9. Options of simulations and real time coloring
10. Basic and complex weave creation.
11. Conversion from basi
12. c to complex and vise versa .

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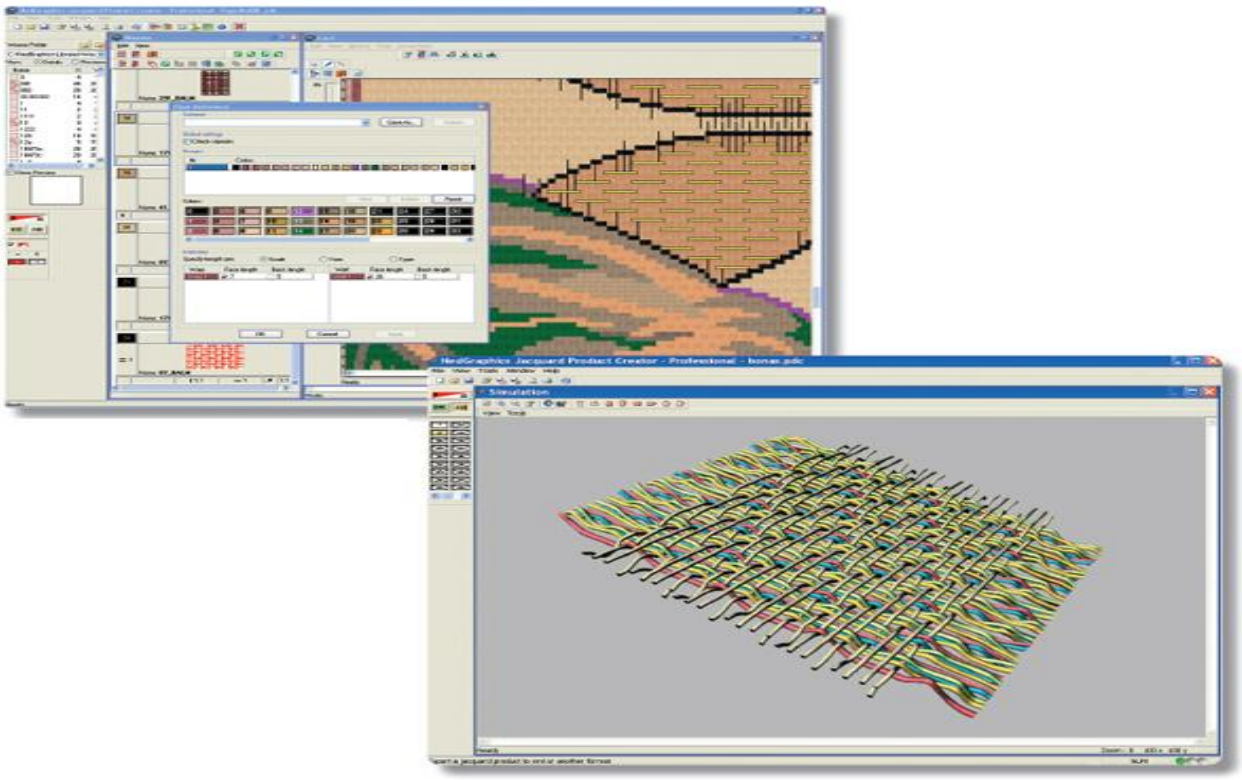
Fig 1.Glitch design made using NedGraphics



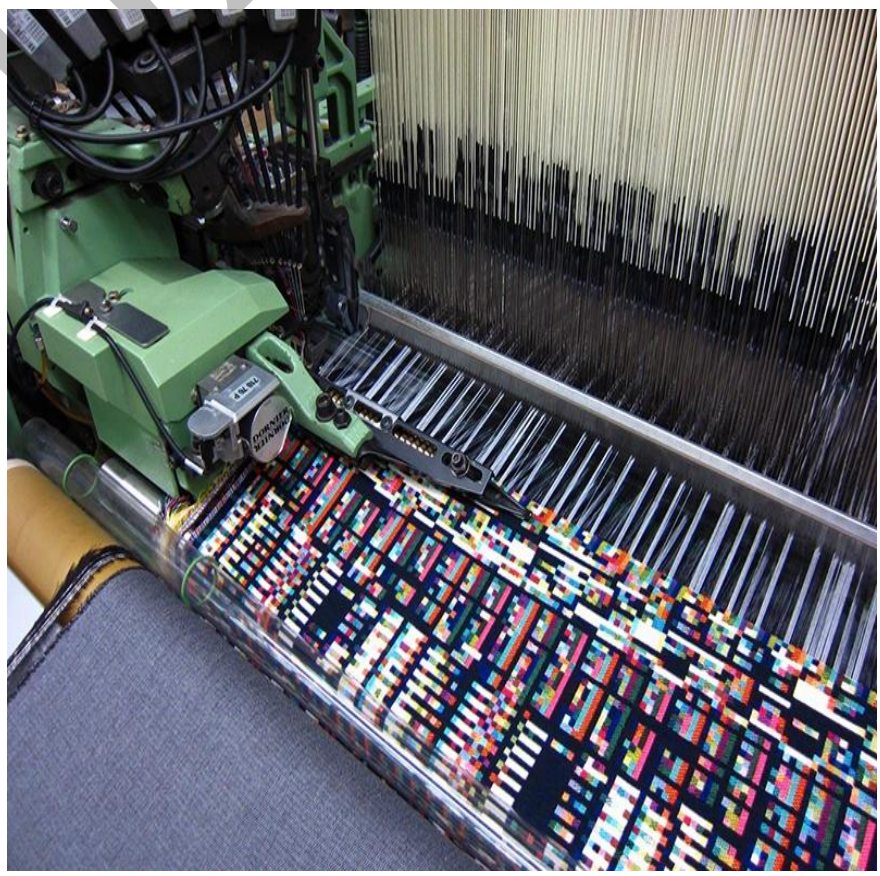


Fig 2 A View of NedGraphics Software

MANUFACTURING DESCRIPTION:

The physical memory details of the computer are transferred into a software .Selections of binary data is converted into images and grouped into 6 bits of RBG pixels. The 64 hues are then mapped into accustom woven palettes made by mixing yarns of 8 colors and using sateen weave.. The resulting patterns are then woven on to the Jacquard loom, Because of the process of translation of the original binary data to the image and then the imagery to the woven pattern it is actually possible to decode the physical memory binary data of the computer or source. Thus fragmented memory acts as a bridge between textiles as a medium of imagery closely connected to technology. It serves as a a medium for storing and transmission of digital imagery .Thus bridging the Gap between technology and Textiles.

SAMPLES OF GLITCH TEXTILES:

Fig 3

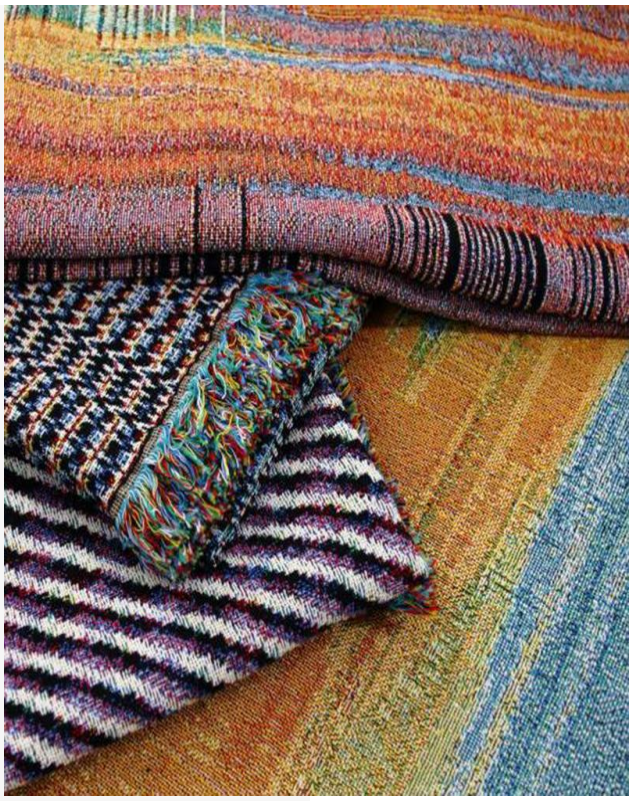


Fig 4

CONCEPT:

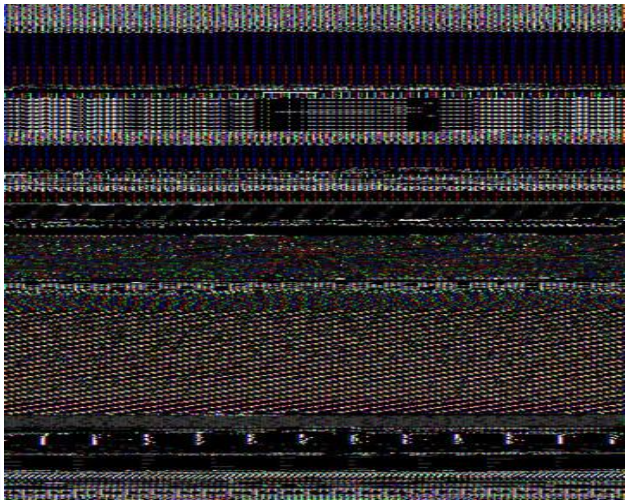
The assembly of computer that can serve as a record for human activity in however a abstract and fragmented form it can be in . It requires intense analysis and understanding of the data procured. The physical memory contains programs and data files stored for future executions which may include sounds texts and images. The physical memory of the computer represents the activities or programs in The representation of Binary data can be in many forms as concave and flat shapes on a piece of metal dark and light markings on a piece of paper or even patterns on a woven textile. Each has it own representation and significance Earlier the Jacquard looms had the extensive use of punch cards which is now being replaced with the use of Binary data.

PRICES FOR FEW SAMPLES BLANKETS :

$15,000

$225.3

$275



$375

2013 FALL KNIT GLITCH BLANKETS:

DCP and P series blankets are patterned from images created with intentionally broken manually revived camera iTunes designs are part of the Binary Blankets collection, created by converting raw binary data into digital images.

BINARY BLANKETS:

A glitch textile has a collection of Binary Blankets using data structures converted into warm cosy blankets. It represents the invisible and the intangible side to the digital world.

This initial collection features designs from binary files from programs such as Microsoft Word, iTunes, Google Chrome, and Mac OSX.

CONCLUSION:

The techniques we used to have in previous Jacquard , Dobby , Clip spot , burnout , etc is a very lengthy , slow , time consuming and expensive process .This fabric or clothes made from this woven fabrics are not easily affordable by common man. Glitch has came up with new and highly technical idea of converting jacquard or dobby design patterns using binary numbers make the work more efficient , accurate , speeding up of work and cheap at the same time. This technique will not only help us in these fields but will take the apparel industry to great heights while the remaining time we save from this can be used in thinking more innovative things .

Glitch has come up with an excellent and diversifying idea . It not only interests us but also motivated us to think in a higher version .

The world of digital textile challenge the very process or reproduction or replication of material . Earlier the process was to produce a product in the same image of likeness but Glitch textiles shows us a process where replication or stage of data can take another's for dissimilar to the original. It opens possibilities never explored before.

KEYWORD:

WORD	MEANING
Ned Graphics	**A software-en information technology company.**
Jacquard	**An equipment with perforated cards to construct weaves.**
Digital Forensics	**The branch with specializes in the investigation of crime using digital devices.**
Weft	**the horizontal crosswise threads on a loom that are passed over and under the warp threads to make fabric.**
Warp	**Vertically held threads on a loom passed over and under which other threads(weft) are passed to make cloth.**
Satin Weave	**Method of weaving fabric in which either the warp or the weft predominated on the surface.**
Magnetic Domain	**A region within a magnetic material which has uniform magnetization.**
Tapestry	

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