

# Revival and Application of Rogan Painting on Waterproof Reversible Denim Jackets

SWETHA.R.G  
ASSISTANT PROFESSOR  
FASHION ART AND DESIGN  
T JOHN COLLEGE 88/1 GOTTIGERE

**Abstract:** This study has been undertaken to revive Rogan painting. Rogan painting is on the verge of extinction as only two families in Nirona village of Kutch and three families in Viramgam, Wadhwan and Ahmedabad are practicing this craft. Due to lack of awareness regarding this craft amongst the Indian consumers, the younger generation is no longer interested in continuing with this craft. This study is undertaken to revive Rogan painting on reversible jackets and the respondents were happy with the attempt they liked the blend of aesthetical and functional aspect.

**Index Terms** – Rogan Paste, Khatri, reversible jackets.

## I. INTRODUCTION

The Rogan art of painting is an ancient art over three hundred years old. The traditional Rogan flower motifs and designs speak of a Persian influence and the word Rogan itself means oil-based in Persian. Today, Nirona in Kutch is the only place where this work is created. When castor oil is heated over fire for more than twelve hours and cast into cold water, it produces a thick residue called rogan, which is mixed with natural colours obtained from the earth. With a six-inch wooden stick or pen, the craftsperson then draws out from this a fine thread which is painted to the cloth. Rogan painting is delicately and precisely painted from one's own creative imagination and is done with total concentration sitting on the floor without using a table-frame or any outline. Rogan painted cloth is used for making pillow covers, tablecloths, wall hangings, file folders, decorative pieces and even saris.

Rogan art is a rare craft that is not well known even in India. Because of its rare qualities, its practiced by only one family in India and they reside in Nirona village in Gujarat. Most of the other artisans have lost their art as it was not passed on during partition or lost from generation to generation. Rogan art is currently the bread earner for a family of Khatri.

In Gujarat, Nirona, Khavada and Chaubari were the hubs of Rogan art and bustling with its practitioners till a few years ago but not anymore. The rich tradition of Rogan painting began some centuries ago among the Khatri, a Muslim community who trace their origin to Sindh. The other Khatri craftsmen gave up their ancestral craft after it stopped yielding.

A jacket is a short coat, worn by both men and women. Apart from the suit, the jacket is one of the most important pieces in ones wardrobe. If cut and styled well, and if made in a fairly neutral color palette, this versatile piece of outerwear is suitable for both formal and leisure activities.

Denim fabric jacket is used for style purpose and for thermal insulation; water proof fabric is used in rainy season to avoid getting drenched. Unique combination of both fabrics to form a reversible jacket with the application of rogan painting to increase the aesthetic appearance of the jacket.

During earlier times, a Natural source such as stone was used while later, plant sources were also used to extract dyes. Colors such as white, red, yellow, blue, green, orange and black were used in pure form.

Today, artisans have switched over synthetic dyes. Artisans were used naphthol dyes for preparation of the colouring paste.

*Rogan* is done two ways. One, *Rogan* paste is made from castor oil & natural dyes like mud, leaves, and plants pounded by hands & heated on a slow fire. Resulting colour pastes are kept in earthen pots or plastic containers & mixed with water to keep them from drying. Then printer dips a thin iron rod into pot of coloured paste, takes pastes & places it on his left first. The cotton *mulmul* fabric is spread on his lap. Skillfully, he lifts the sticky paste in a thread like consistency, with the rod & paints the design on the cloth.

*Rogan* printing is on the verge of extinction as only two families in Nirona village of Kutch and three families in Viramgam, Wadhwan and Ahmedabad are practicing this craft. Due to lack of awareness regarding this craft amongst the Indian consumers, the younger generation is no longer interested in continuing with this craft. It requires not only skill but patience, concentration, a sense of proportion, an aesthetic appreciation and not to mention visual co – ordination

Hence this study is undertaken to revive Rogan painting on reversible jackets and the respondents were happy with the attempt they liked the blend of aesthetical and functional aspect in jacket and sample A is rated as excellent work in terms of overall appearance.

### Rogan Painting

According to [http://traditionalroganart.com/?page\\_id=19](http://traditionalroganart.com/?page_id=19) (1900) states:-



figure 1.1

The Rogan art of painting is an ancient art over three hundred years old. The traditional Rogan flower motifs and designs speak of a Persian influence and the word Rogan itself means oil-based in Persian. Today, Nirona in Kutch is the only place where this work is created. When castor oil is heated over fire for more than twelve hours and cast into cold water, it produces a thick residue called rogan, which is mixed with natural colours obtained from the earth. With a six-inch wooden stick or pen, the craftsperson then draws out from this a fine thread which is painted to the cloth. Rogan painting is delicately and precisely painted from one's own creative imagination and is done with total concentration sitting on the floor without using a table-frame or any outline. Rogan painted cloth is used for making pillow covers, tablecloths, wall hangings, file folders, decorative pieces and even saris.

Rogan art is a rare craft that is not well known even in India. Because of its rare qualities, its practiced by only one family in India and they reside in Nirona village in Gujarat. Most of the other artisans have lost their art as it was not passed on during partition or lost from generation to generation. Rogan art is currently the bread earner for a family of Khatri. Gafoorbhai Khatri is the head of this family and he has kept the art alive by ensuring his entire family learns and practices his life's work. He is a National award winner and is

currently in the process of opening a school that teaches Rogan art to children from different families. He has not marketed his creativity through any distribution channels.

In Gujarat, Nirona, Khavada and Chaubari were the hubs of Rogan art and bustling with its practitioners till a few years ago but not any more.

The rich tradition of Rogan painting began some centuries ago among the Khatri, a Muslim community who trace their origin to Sindh.

The other Khatri craftsmen gave up their ancestral craft after it stopped yielding good returns and switched over to other jobs but not this particular family.

The eight male members — all of whom have State and National awards to their credit — in the joint Khatri family are experts of their craft and produce eclectic items like wall-hangings, pillow covers, table cloths bearing imagery which combines influences of Persian miniatures and local folk art, mainly for the international market. A lot of tourists who visit the village also pick up stuff from them.

The exposure tourism brought gradually led to an increase in demand. And the family now even runs a unit employing outsiders, with a hope to make their products available in the market.

“The products are not easily available and those who want to buy it have to come to the family in Nirona,” points out Sumar.

Recently the family, with the support of an organisation, has trained 60 women out of which some are employed with the Khatri and a few have been absorbed elsewhere.”

Marking a departure from the age-old tradition, the women have entered what was the reserve of the men folk.

They are from various castes and faiths.

According to <http://traditionalroaganart.com/>(1995) states:-



Figure-1.2

It was only be expected that Mr. Abdulgafoor Khatri would become an artist- a potent combination of genes and enviroment ensured that. Seven generation of the Khatri family have been practising the art of Rogan painting, an ancient skill with Persian origins. The village of Nirona in Kutch, where Khatri and his ancestors have lived all their lives, has been the fertile soil that has nurtured many kinds of skills such as metal work, copper bell craft, embroidery ane wood work. Yet even in this imensely creative environment, Abdulgafoor Khatri's family stands out, for the appear to be the only family practising the little known art of Rogan painting.



figure 1.3

Khatri abandoned school when he was just nine years old, preferring to work with the family as they toiled over the intricacies of preparing the castor oil base (known as rogan), in which they mixed vegetable pigments, and created vibrant organic palettes. He would watch intently as his father dipped a slim metal stick into the colour and used it as a brush



figure 1.4

It was only be expected that Mr. Abdulgafoor Khatri would become an artist- a potent combination of genes and enviroment ensured that. Seven generation of the Khatri family have been practising the art of Rogan painting, an ancient skill with Persian origins. The village of Nirona in Kutch, where Khatri and his ancestors have lived all their lives, has been the fertile soil that has nurtured many kinds of skills such as metal work, copper bell craft, embroidery ane wood work. Yet even in this imensely creative environment, Abdulgafoor Khatri's family stands out, for the appear to be the only family practising the little known art of Rogan painting.

And yet, when khatri was young adult, he turned his face away from the art he loved so much; trying his hand at various occupations such as selling vegetables, laboring at saw mill and block printing. The search for a steady job led him first to Ahmadabad and then to Mumbai, where he lived for two years. “Than in 1983, I got a call from my grandfather,” he recalls. “He was ailing and had a complicated order to execute. He was also desperate that this art should not die with him and my father. So I went back and picked up the brush again..... and haven’t put it down since Who can run away from his destiny?”



figure 1.5

The initial years were just as hard as he had envisaged. “Gujarat mein akaal bhi thaa... we artist were hard pressed to find a buyer. But I preserved, started going to a couple of exhibitions in Delhi, and Slowly began to be recognized for my work.

In 1988, kharti won the State Award and inn 1997, the National Award. He smiles happily, “Awards are reassuring....My brother also won the National Award in 2003! . The community is proud of us. Truthfully, it is after winning these awards that I realized how fortunate I am to have this gift.”

The biggest problem that he continues to face is lack of awareness about Rogan Art which result in the finished product resembling a printed piece of fabric! Khatri rules, “It is perfection that we try to achieve with every painting, but it is so perfect that I have to explain that is not printed, but painted by hand!”



figure 1.6

The process is time-consuming. First the rogan (which takes its name from the Persian word ‘oil-based’) has to be prepared by heating castor oil to boiling point over three days, cooling and then as it thick-ens, mixing in appropriate amounts of colours. The pastes of yellow, red, white, green, black and orange are kept in earthen posts with water to keep them moist. A thin iron rod, flat at both ends, is used to paint. While geometrical prints are perennial favourite, khatri has experimented with motifs such as the “Three of Life and Moghul paisleys that find epression in cushion vovers, bedspreads, kurtas, curtains, table clothes and wall hangings. It was Khatri’s intricate work on a sari, completed over a year,that won him the National Award.

Figure 1.7



In the last years, Nirona has become a favoured spot on tourist

itineraries as home to a variety of crafts. “I have learnt English too,” grins Khatri. “And I am very happy with their response to Rogan art.”

Has the troubled environment in Gujarat over the last few years affected his creative output? Khatri stresses, “In Nirona there is lot of bhaichara. We artist are never troubled by these situations, which in any case is usually politically motivated. The society here is very secular – Ahirs, Muslims and Dalits all live peacefully. There is no discrimination. I also make it a point not to internalise any

of these negative things, otherwise it would affect my art. Then I would not be true to the almighty”

<https://unexplored.lonelyplanet.in/discovery/entry.html>(1998) states:

Gafoorbhai Khatri's family living in Nirona in Kutch region of Gujarat is quite unique- while most member of this family has not stepped out of Kutch, their art form, Rogan has spread far and wide in the world including the White House! Rogan art, which is more than 300 hundred years old, is one of the dying arts of India - getting lost from generation to generation of artisans who have moved on to better paying work. Khatri family is the lone family in Kutch who still continue the tradition of Rogan art. It is an oil based art form which uses castor oil, which is found abundantly in the Kutch region, as the base. The oil is heated for hours and cooled instantaneously creating a thick resin-like liquid called Rogan. This is then mixed with natural colors and used to paint on cloth with a wooden stick. Rogan paintings are symmetrical so the artist draws only half of the design and then folds the cloth to create a mirror image. The Persian roots of this art form can be clearly seen in its flower and minaret type motifs. The Khatri family are warm inviting bunch and invited us into their house for a demonstration of how the painting is actually done and tell us stories about other famous visitors.

<http://indianprintedandresisttextiles.blogspot.in/2013/05/printed-textiles-of-india.html> states:-

*Rogan* printing is on the verge of extinction as only two families in Nirona village of Kutch and three families in Viramgam, Wadhwan and Ahmedabad are practicing this craft. Due to lack of awareness regarding this craft amongst the Indian consumers, the younger generation is no longer interested in continuing with this craft. It requires not only skill but patience, concentration, a sense of proportion, an aesthetic appreciation and not to mention visual co – ordination.

It's still practiced as a traditional craft by ‘*Chippas*’, hereditary craft persons belonging to Hindu & Muslim communities in Kutch district in Gujarat. Stick or iron rods with tapered ends and metal blocks with wooden handle (Block is hollowed in which printing paste is filled) are used for *Rogan* printing or painting. The art of *rogan* printing on cloth dates back to centuries. This art came into India from the *Afridis*, originated in Syria; the route was through Persia, Afghanistan and Pakistan. The craft concentrated in the Northwestern parts of India, and was practiced mainly by the Muslim descendents of *Afridis*. Later, it was found that *rogan* craft was practiced not only by the *Afridis* but also in Peshawar, Lahore and Pathan, where linseed oil was used where as in Kutch; castor oil was used for the preparation of *rogan* paste. The product came to be called as *Afridi lac* cloths or Peshawar lac cloths.

During earlier times, a Natural source such as stone was used while later, plant sources were also used to extract dyes. Colours such as white, red, yellow, blue, green, orange and black were used in pure form. Today, artisans have switched over synthetic dyes. Artisans were used naphthol dyes for preparation of the colouring paste.

*Rogan* is done two ways. One, *Rogan* paste is made from castor oil & natural dyes like mud, leaves, and plants pounded by hands & heated on a slow fire. Resulting colour pastes are kept in earthen pots or plastic containers & mixed with water to keep them from drying. Then printer dips a thin iron rod into pot of coloured paste, takes pastes & places it on his left first. The cotton *mulmul* fabric is spread on his lap. Skillfully, he lifts the sticky paste in a thread like consistency, with the rod & paints the design on the cloth.

### 2.1a.Raw Material and technique used:-

According to -Mathai A., The Last of Roghans, *Jetwings*, Gujarat, India,27, (2000) states,

### **Dyes used for Rogan painting**

As stated by the respondents during earlier times, natural sources such as stone was used while later, plant sources were also used to extract dyes. Colours like white, red, blue, yellow, green and orange were used in pure form. But today, they have switched over to synthetic dyes. It was observed that all the artisans were using naphthol dye for preparation of the paste. The colours used were locally known as *Pavadi* (yellow) *Lal* (red), *Vadadi* (blue), *Safad* (white), *Leelo* (green) and *Bhuro* (brown). They also used coloured pigments and binding agents. The dyes were available in market in different price range according to the shades of dyes.

### **Process of preparing of colour paste**

Each and every stage of the process was as informed by the craftsmen. The process of *rogan* painting was very time consuming art and hazardous to health as stated by the craftsmen of Nirona. They stated that for preparing *rogan* paste the craftsmen needed to be highly skilled . For the preparation of colour paste, the main equipment used was *kharal*, the manual stone grinder which helped in mixing the colour paste.



Fig.2 Preparation process of Rogan paste in Virangam village



Fig.3 Preparation process of colour paste

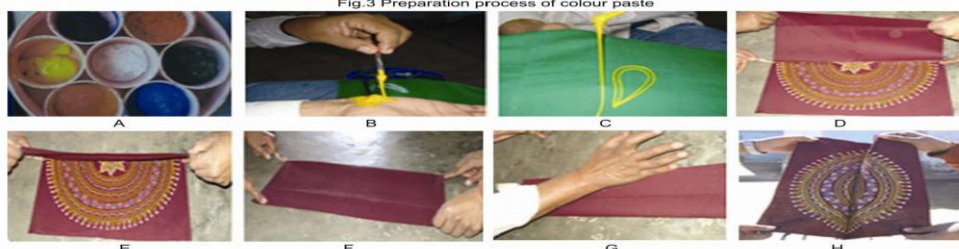


Fig.4 (A to I) Process of Rogan painting on the fabric

*The Manufacturing  
Process  
Making the paste*

- 1 Pigment manufacturers send bags of fine grain pigments to paint plants. There, the pigment is premixed with resin (a wetting agent that assists in moistening the pigment), one or more solvents, and additives to form a paste.

*Dispersing the pigment*

- 2 The paste mixture for most industrial and some consumer paints is now routed into a sand mill, a large cylinder that agitates tiny particles of sand or silica to grind the pigment particles, making them smaller and dispersing them throughout the mixture. The mixture is then filtered to remove the sand particles.
- 3 Instead of being processed in sand mills, up to 90 percent of the water-based latex paints designed for use by individual homeowners are instead processed in a high-speed dispersion tank. There, the premixed paste is subjected to high-speed agitation by a circular, toothed blade attached to a rotating shaft. This process blends the pigment into the solvent.

*Thinning the paste*

- 4 Whether created by a sand mill or a dispersion tank, the paste must now be thinned to produce the final product. Transferred to large kettles, it is agitated with the proper amount of solvent for the type of paint desired.

*Canning the paint*

- 5 The finished paint product is then pumped into the canning room. For the standard 8 pint (3.78 liter) paint can available to consumers, empty cans are first rolled horizontally onto labels, then set upright so that the paint can be pumped into them. A machine places lids onto the filled cans, and a second machine presses on the lids to seal them. From wire that is fed into it from coils, a bailometer cuts and shapes the handles before hooking them into holes precut in the cans. A certain number of cans (usually four) are then boxed and stacked before being sent to the warehouse.

*Quality Control*

Paint manufacturers utilize an extensive array of quality control measures. The ingredients and the manufacturing process undergo stringent tests, and the finished product is checked to [insure](#) that it is of high quality. A finished paint is inspected for its density, fineness of grind, dispersion, and viscosity. Paint is then applied to a surface and studied for bleed resistance, rate of drying, and texture.

In terms of the paint's aesthetic components, color is checked by an experienced observer and by spectral analysis to see if it matches a standard desired color. Resistance of the color to fading caused by the elements is determined by exposing a portion of a painted surface to an arc light and comparing the amount of fading to a painted surface that was not so exposed. The paint's hiding power is measured by painting it over a black surface and a white surface. The ratio of coverage on the black surface to coverage on the white surface is then determined, with .98 being high-quality paint. Gloss is measured by determining the amount of reflected light given off a painted surface.

Tests to measure the paint's more functional qualities include one for mar resistance, which entails scratching or abrading a dried coat of paint. Adhesion is tested by making a crosshatch, calibrated to .07 inch (2 millimeters), on a dried paint surface. A piece of tape is applied to the crosshatch, then pulled off;



good paint will remain on the surface. Scrub ability is tested by a machine that rubs a soapy brush over the paint's surface. A system also exists to rate settling. An excellent paint can sit for six months with no settling and rate a ten. Poor paint, however, will settle into an immiscible lump of pigment on the bottom of the can and rate a zero. Weathering is tested by exposing the paint to outdoor conditions. Artificial weathering exposes a painted surface to sun, water, extreme temperature, humidity, or sulfuric gases. Fire retardancy is checked by burning the paint and determining its weight loss. If the amount lost is more than 10 percent, the paint is not considered fire-resistant.

## METHODOLOGY

Aim:-“to study and revive the traditional rogan art on waterproof reversible denim jackets”

Objectives:-

Phase 1(review and study)

- To study Rogan painting.
  - Technique used
  - Motif symbolization
  - Colours used
  - Available products in market of rogan painting
- To study about jackets
  - To know about different styles of jackets avail
  - To know about different types of fabrics used for jackets
  - To know about reversible jackets and its importance
  - Costs of reversible jackets

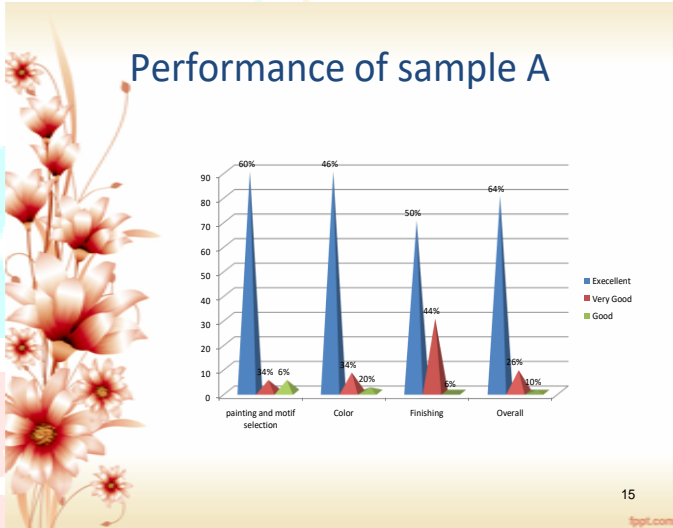
Phase 2(designing and constructing)

- Design and construct reversible jacket of age group 25-35.
- Imitate Rogan painting using fabric liner on denim with tradition motif of Rogan painting.

Phase 3

- To evaluate the geometric properties of fabric(waterproof and denim).
- To evaluate the acceptance of reversible jacket made of denim and waterproof fabric with the imitation of rogan painting by using questionnaire as tool.





15

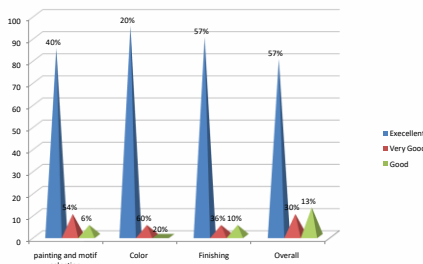


### Original and imitation



18

### PERFORMANCE OF SAMPLE B



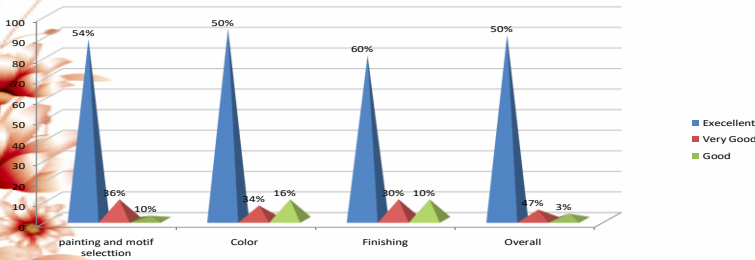
17

### Jacket -3



www.ijcrt.com

### Performance of sample-C

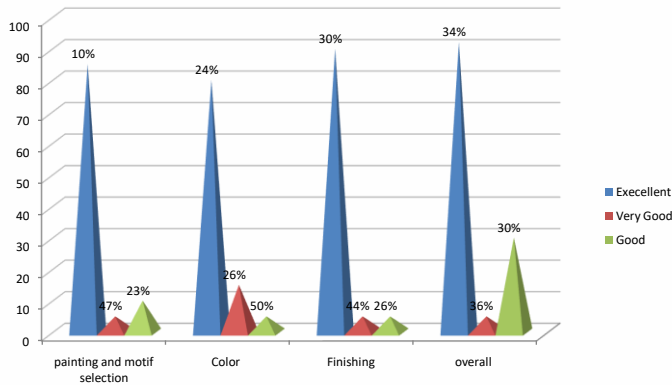


20

### Jacket -4

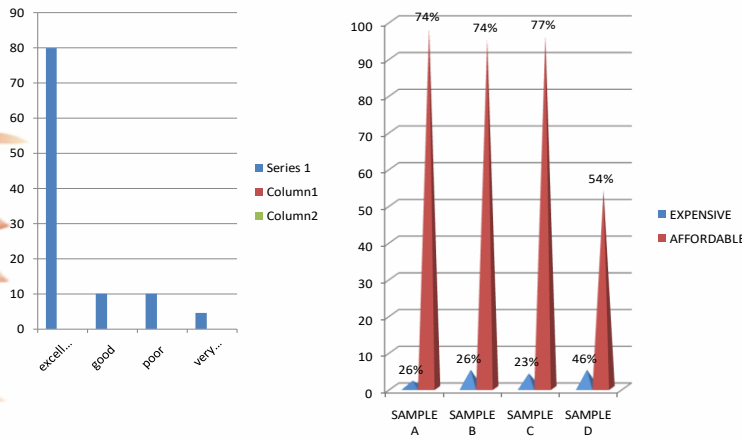


## Performance of sample-4



22

## Acceptance rogan art and cost of jacket



23

## All 4 samples of imitation



24

Table:17

### GEOMETRIC TEST DONE FOR BOTH DENIM AND WATERPROOF FABRIC

Serial No	TEST	DENIM FABRIC	WATER PROOF FABRIC
1.	LENGTH	86"	86"
2.	WIDTH	60"	60"
3.	THICKNESS	38mm	10mm
4.	FABRIC COUNT	36warp 38 weft	38 warp 34 weft
5.	CRIMP	.9%	.1%
6.	YARN COUNT	26 warp 32 weft	22warp 30weft
7.	WEIGHT	1.634gm	0.762grms
8.	CREASE RECOVERY	90degree	110degree

25

## SPECIAL TEST DONE FOR BOTH DENIM AND WATER PROOF FABRIC

<u>SL NO</u>	<u>TEST</u>	<u>DENIM</u>	<u>WATERPROO F FABRIC</u>
<u>1.</u>	AIR PERMEABILITY	5cubic cm sq	3cubic cm sq
<u>2</u>	TENSILE STRENGTH	80lbs 1.5'	140lbs 1.3'
<u>3</u>	WASHABILITY	4 grade	4 grade

26

### Result and discussion

Market survey report states the reversible jacket made is widely acceptable by the market, of about 95% of respondents appreciated the attempt and accepted the revival of Rogan art on reversible jackets made of waterproof and denim fabric.

90% of respondents stated that sample A is excellent for Rogan painting and motif selection and placement.  
92% of respondents stated that sample b is excellent in terms of color combination rogan art.  
94% respondents stated that sample a is excellent when we compare the overall appearance.

### References:

1. (n.d.). Retrieved July 20, 2013, from [www.google.co.in](http://www.google.co.in):  
<http://curriculumsupport.nsw.edu.au>
2. 1-10 Technology Unit, C. K.-1. (n.d.). Retrieved July 20, 2013, from <http://curriculum> Flick, Ernest W. *Handbook of Paint Raw Materials*, 2nd ed. Noyes Data Corp., 1989.
- 3 Martens, Charles R. *Emulsion and Water-Soluble Paints and Coatings*. Reinhold Publishing Company, 1964.
- 4 Morgans, W. M. *Outlines of Paint Technology*, 3rd ed. John Wiley & Sons, 1990.
- 5 *The Paints and Coatings Industry*. Business Trend Analysts, 1990.
- 6 *Paints and Protective Coatings*. Gordon Press, 1991.
- 7 Turner, G. P. A. *Introduction to Paint Chemistry and Principles of Paint Technology*, 3rd ed. Chapman & Hall, 1988.

8 Weismantel, Guy E. *Paint Handbook*. McGraw-Hill, 1981.

9. Anon., Print of Persia, *The other India*, The Sunday Read, 14 (2008)

10. Anon., Painted and Printed, *The India Magazine of her people and Culture*, Gujarat, India, 54-57, (1995)

11. Mahurkar U., Golden Legacy, *Offtrack Bhuj*, India Today, Bhuj, 11, (2005)

12. Mathai A., The Last of Roghans, *Jetwings*, Gujarat, India, 27, (2000)

13. Quadri N., Rohan josh, *Harmony*, India, (2009)

14 Amies, Hardy. A,B,C of Men's Fashion. London: Cahill and Company Ltd., 1964.

15 Byrde, Penelope. The Male Image: Men's Fashion in England 1300-1970. London: B.T. Batsford, 1979.

16 Chenoune, Farid. A History of Men's Fashion. Paris: Flammarion, 1993.

17 De Marley, Diana. Fashion for Men: An Illustrated History. London: B.T. Batsford, Ltd. 1985.

18 Keers, Paul. A Gentleman's Wardrobe. London: Weidenfeld and Nicolson, 1987.

