

The Real Madras Handkerchief

Squares unravelling stories

2016-17



The Real Madras
Handkerchief:
Squares Unravelling Stories

DISCOVER INDIA PROGRAM

2016-17

March, 2017

CERTIFICATE

This is to certify that the work incorporated in this report entitled “*The Real Madras Handkerchief: Squares Unravelling Stories*” submitted by the undersigned Research Team was carried out under my mentorship. Such material as has been obtained from other sources has been duly acknowledged.

Sr. No	NAME OF THE STUDENT	DESIGNATION	SIGNATURE
1	Hrishikesh Bodas	Creative Team	
2	Kevin George	Pre- field Content Writing, Videography	
3	Nisha Joshi	Content Writing, Photography	
4	Aravind Kodipaka	Accounts, Photography, Videography	
5	Ramya Nair	Group Representative, Content Writing	
6	Saidev Reddy	Logistics	
7	Shargava Sandeep	Creative Team	
8	Siddharth Sachdev	Accounts, Logistics, Post-field Content Writing	
9	Nethra Singhi	Content Writing	
10	Shivani Yerva	On-field Accounts, Creative Team	

Report Mentor

Name: **Dr. Priya Nair**

Signature:

Date: 3rd March 2017

Faculty Mentor

Name: **Prof. Neeta Sharma**

Signature:

Date: 3rd March 2017

Acknowledgements

To undertake a journey like the Discover India Program has been demanding yet very worthwhile to us all. While travelling to over twelve regions in ten days to rediscover the Real Madras Handkerchief, we met several people who were kind enough to help us and deserve due regard in this report. We feel grateful to have been able to contribute to the documentation and further research of this lesser known, age-old heritage of our country.

For this, we would like to extend our deep appreciation to FLAME University, Vice Chancellor, Dr. Devi Singh, and Associate Dean, Dr. Santosh Kudtarkar, for giving us this opportunity. Next, we would like to thank Dr. Shweta Rana, Chair, DIP 2016-2017, for guiding us with patience through this year and helping us at every step along the way. We would also like to thank the DIP Committee for sharing their knowledge and directing us through the right path of our research.

On field we were fortunate to meet people within this community, who were very open to sharing their valuable insights with us and welcomed us with warmth. We are truly grateful to Dr. Deborah Thiagarajan and the staff at Dakshinachitra Library for providing us with otherwise inaccessible data. We would also like to give due acknowledgement to Mr. Macharla Mohan Rao, for giving us his valuable insights and helping us get in touch with Prof. Jasleen Dhamija, who has been an immense aid with providing data as well as her insights to our research. Mr. Raj Pridhvi and his father gave us access to their repository along with precious samples of the fabric, aside from invaluable trade information, for which we are indebted to them.

In the due course of our research, we also got in touch with Prof. Joanne B. Eicher, Mr. Dominic Hassan and Ms. Kavita Parmar who have been of great help to our project. We are also sincerely thankful to all the weavers, representatives of weavers' associations and officials, without whom our on field endeavours would have been inadequate. Additionally, we show our gratefulness to the Singhi family for being such gracious hosts to our group. Following this we would also like to thank Sakshi Bisani and Additya Sharma for helping us in taking some of the most important interviews of our study. Additionally, we extend

heartfelt gratitude to Sureen Hassan for the beautiful illustration she sketched for us and Jinesha Bhimani for the wonderful back and front cover of the report.

Moreover, we would like to show deep gratitude to our faculty mentor Prof. Neeta Sharma and report mentor Dr. Priya Nair, both of whom have been very patient and accommodating to our laborious itinerary, last minute checks and late night phone calls to make sure that we were well prepared for everything. Without your guidance and encouragement, our project would not have been half as successful or delightful as it has turned out to be.

We intend to thank everyone else who has been involved in this project for the past six months; your support has been invaluable to us.

Abstract

The Real Madras Handkerchief is a five century old cloth whose history is a tale, of not just events but also a legacy of handloom that was intricately linked with numerous lives. The 36” x 36” cloth has, at various points in history acquired symbolism across different contexts and time. Yet, it's own story remains under documented and not given due attention. This paper has enumerated the various contexts this fabric has gained meaning in; its countless designs, historical and current consumers, and policies that affect its weavers and of course, the cloth itself.

The paper elaborates on the origins and the history of the cloth in relation to certain regions, which have inculcated the fabric in their culture. Once the context of the cloth is established, the paper progresses to findings from our on field research about what RMHK symbolizes in India, its different designs and the current situation of both the cloth and its weavers. There has been less academic work done on RMHK from an Indian context and most of the existing literature talks about other regions like West Africa, the Caribbean Islands, extensively and mentions India only in passing. Our travel to Tamil Nadu and Andhra Pradesh was undertaken to study the weaving process, enquire into the consumer market, involvement of government and private organisations along with the consequences of the previously stated enquiries. Our idea is to collate the primary and secondary data to contribute to the study of RMHK as a whole. The varying perspectives presented in the paper act as a tool to contextualising today’s reality and weave in the times gone by.

The Real Madras Handkerchief is a product of history and an existing legacy. The meaning of the fabric cannot be limited to set parameters, its blurred lines of identification add ambiguity to the fabric. It is this trait of mystery that the fabric possesses, that increased our curiosity towards enquiring into the legacy of RMHK.

This paper is an effort to present an age old story, one about the Real Madras Handkerchief, whose tale remains ambiguous to its homeland even today.

Table of Contents

S. No.	Particulars	Page Number
1	Acknowledgement	ii
2	Abstract	iv
3	1.0 Introduction	1
	1.1 Introduction	2
	1.2 Historical and Geographical Overview	2
	1.3 Research Statement	7
	1.4 Aims and Objectives	7
	1.5 Pre-field Hypothesis	7
	1.6 Research Methodology	8
	1.7 Limitations	9
	1.8 Rationale	10
4	2.0 Literature Review	12
	2.1 Weaving process of the cloth	13
	2.2 Historical and cultural significance	16
	2.3 Socio-Economic Significance	27
	2.4 Contemporary Scenario	28
5	3.0 Field Findings and Analysis	31
	3.1 The Weaving Process	32
	3.2 The Weavers' Situation	37
	3.3 Design	42
	3.4 Trade	48
	3.5 Reflections	57
6	4.0 Conclusion	62
7	Works cited	67

List of images, tables, maps

Images

Image Number	Caption	Page number
1	A hank stand- used to separate threads from a yarn	13
2	A miniature loom at Dakshinachitra Museum, Chennai	14
3	<i>A pelete bite</i> wrapper	19
4	Kalabari children wearing Madras	19
5	Traditional men's attire in the Kalabari tribes	19
6	A Guadeloupean woman showing one of the many Caribbean headwraps	22
7	Traditional Dominican Gwan Wob	22
8	An old newspaper advertisement of Madras	24
9	Label on a Bleeding Madras shirt	24
10	Madras checks incorporated in the American preppy culture	26
11	Some trends of patchwork Madras	26
12	The dyeing of the yarns	33

13	The shuttle or 'nada' used in a handloom	33
14	Women play an important role in many of the pre-loom processes, one of them being winding	33
15	However, many such processes have become mechanized today	33
16	The power loom machine	35
17	The human touch is still required in both power looms and auto looms	35
18	The design card that sets patterns on the power loom	35
19	A worker manning the auto loom machine	36
20	V. Ganesan, a handloom weaver from Tiruttani	38
21	A message at the gate of Subhodaya Weaving Society	39
22	The team after an interview with Mr. Macharla Mohan Rao	40
23	Motif on an RMHK bag	43
24	Borders of a crown symbol on RMHK	43
25	RMHK sample	43

26	Art silk RMHK	43
27	Motifs on RMHK sample	45
28	Zari on RMHK sample	45
29	Plain RMHK	45
30	Checked RMHK	45
31	RMHK with art silk embroidery	45
32	RMHK with motifs	45
33	RMHK with Ikat borders	47
34	RMHK with shapes	47
35	Striped and checked RMHK	47
36	Bordered RMHK	47
37	RMHK in traditional colours (indigo and red)	47
38	Gujarati embroidered RMHK	48
39	A discussion with Mr. Raj Pridhvi, Exporter	52
40	Mr. Ram Murthy Naidu (second from left) and fellow government officials, APCO, Chirala	56
41	The stockpiles of fabric that have remained unsold	58

Illustrations and tables

Number	Name	Page Number
1	The RMHK Nomenclature	6
2	RMHK through time	60
3	Food for thought	66

Maps

Number	Name	Page number
1	Trade Routes of RMHK	5
2	Our research route	10

Graphs

Number	Name	Page number
Graph 1	Value of RMHK exports from India. Time period (2009-10 to 2013-14)	49
Graph 2	Quantity of RMHK exports from India. Time period (1890-91 to 1939-40)	49
Graph 3	Trade of RMK between exporters in Masulipatnam and England. Time period (1732-1794)	50
Graph 4	Trade of RMK between exporters in Masulipatnam and England. Time period (1673-1698)	50

Introduction



1.1 Introduction

Clothes and forms of attire have, for generations, been visual markers of a particular community or a message that enjoys mass recognition. The symbolism attached to particular attires has been an important tool in the creation and recognition of individual and collective identities.

One such fabric that has shaped identities across the globe is the Real Madras Handkerchief. More popularly known as Madras, it is a 36" x 36" inch woven fabric that has been this tool for multiple identities across space and time. It was generally identified as a light, hand woven cotton or art silk fabric on which the most common design was checks, notwithstanding embroidery and other motifs that also featured.

It is said that, "...The first Madras cloth was made of yarn that was spun from the tip-skin of old trees. Later on, the fabric was hand-dyed" (Zamor, 157).

The fabric has shaped multiple identities and influenced communities across the globe, in order to distinguish their identity. Despite this, the general populace seems quite unaware of the story of this fabric.

The cloth got the prefix 'Real' and the suffix 'Handkerchief', thereby evolving into the cloth that it is today. The cotton fabric came to be known as 'Madras' when Portuguese traders popularized the cloth under the name of the town, Madrasapattinam¹, from where it was exported elsewhere (Evenson, "Role of Middlemen" 95). The suffix 'Handkerchief' was attached when the British, the most eminent traders, wanted to bypass export duties. The prefix 'Real' was attached when its popularity impeded further growth as other competitors like Switzerland, Japan, China, the Philippines and Britain started producing 'imitations' of the fabric on power looms (Ibid.). These events lent the fabric its patent name, 'Real Madras Handkerchief'.

1.2 Historical and Geographical Overview

The journey of RMHK started off as a small piece of cotton cloth in sixteenth century Masulipatnam (now called Machilipatnam) in Andhra Pradesh, where it was used for

¹ Capital of the British era Madras Presidency, current day Chennai

² Hajji- a Muslim who has been to Mecca as a pilgrim

cleaning idols of deities in temples. The Portuguese started exporting this fabric to West Africa, where tribes in the Niger Delta took a fascination to it. It was of particular interest to the Hajjis² returning from Mecca (Dhamija, 289). Unlike most ancient travelers, they came to India via land routes that connected Eastern and Western Africa to places of pilgrimage near India. They took the cloth through this route.

As the network of exports grew during the British reign in India, the usage of the cloth spread to many countries across Europe, the Caribbean Islands and West Africa. However, a significant drop in the exports has been observed in the past decade, except to West Africa and France (HEPC Report 2014-15).

The advancements in technology and the increased emphasis on production of large quantities of the fabric led to the decrease in handloom weaving and an increased production on power looms and auto looms³. Hence, the cloth itself is subject to an identity crisis, which causes ambiguity in what qualifies as RMHK. The families that used to weave the fabric on handlooms have now shifted to power looms and auto looms and other hand woven fabrics like *pattu cheera saris*⁴ (Mohan Rao). There are many fascinating stories associated with the origin of the cloth. One widely accepted narrative is that in Machilipatnam, a particular type of cloth called *Urumal* was woven specifically for wiping the face of the deity in the medieval times. Weavers wore this cloth to show their devotion and its production was limited to the extent required in temples and regions around it. The Persian and Arab traders who settled in Machilipatnam appreciated this variety of cloth and supplied huge quantities of it to Mecca, under the name of *Rumal*. Sixteenth century Portuguese records show the popularity of checked scarves called *Rumals* among Hajj pilgrims (Dhamija, 290). They exported hand woven and embroidered variants to Mecca for centuries, which eventually came to be associated with pilgrimage. These were cheap and had multiple uses, such as headgear, *Janamaz* (prayer rug), bathing towel etc. (Hassan). Most Hajjis, on the pilgrimage to Mecca, wore the *Rumal* on their shoulders to indicate their pilgrim status. It was even brought back as precious gifts for the elderly of the family.

² Hajji- a Muslim who has been to Mecca as a pilgrim

³ Auto looms are fully automatic looms, where the shuttle is replenished by automatically replacing the exhausted bobbin/nada with a full one

⁴ Silk saris from Chirala region

The Portuguese traders started exporting this cloth as “Madras” to the West African region (Evenson, “Role of Middlemen” 95). It was then that the Kalabari tribes of Nigeria were introduced to the cloth in the sixteenth century. They were particularly fascinated with the cloth because, though they traded in many fabrics, they did not make their own at that time (Ibid.). They called it *Injiri*, which in the Kalabari dialect, literally translated to ‘that which is from India’ and was incorporated into their daily rituals as well as other special occasions.

The British introduced the fabric to the Igbo tribe in the same region much later, though no proper records exist for the same. This fabric also came to be known as “George” after the place from which it was primarily exported, Fort St. George⁵ (Dhamija). George then became the fabric used to make colorful wrappers (traditional women’s garments) worn by the women of this tribe. Likewise, RMHK spread to many tribes in West Africa, and from there, to North and Central Africa.

A triangle trade existed between India, Britain and West Africa, after Britain had colonized India. The fabric was produced in India, shipped to London, from where it was sold by the Royal African Company in Africa, to be used as currency for slaves (Owusu, 229). After the abolition of slavery in 1808, the British classified RMHK as “prohibited goods”. They then earned more by revoking duties on the smuggled goods and selling British imitation Madras alongside RMHK in the delta. Slaves from Africa were then sent to the Caribbean as cotton plantation workers, and the women there used head-ties made of RMHK as an identity marker.

By the 1900s, Madras also made its presence in the USA and became a part of the popular Preppy culture of the 1960s. Bleeding Madras⁶ Shirts were especially popular there amongst the Ivy League students (Scheider).

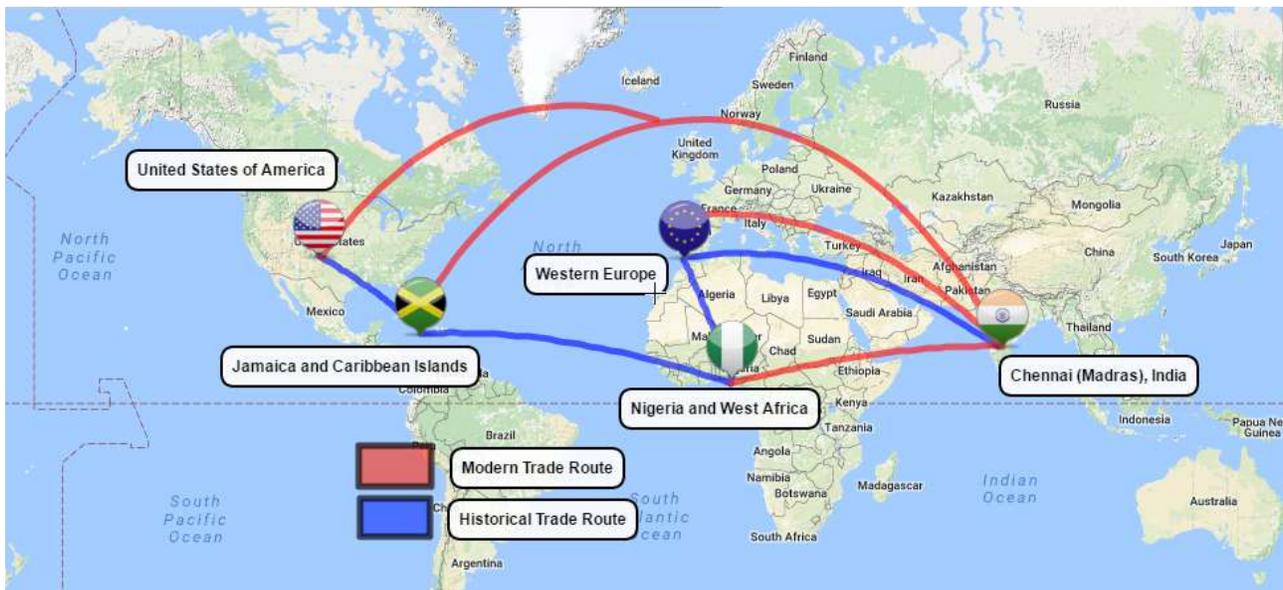
However, by the 1970s, exports of Madras to all countries declined due to various reasons. It is produced mainly on power looms and auto looms today and exports are primarily to Africa (Owusu, 229).

Though the Madras cloth has been this popular, what it actually is and how its design and

⁵ The primary point of export of the Madras fabric

⁶ Madras made on pure cotton yarns and homemade vegetable dyes were known to run or “bleed” with the colour of these dyes, without giving the fabric a faded appearance

symbolism have evolved have not been given due attention. This story is partly what our research aims to try and explore. It should be noted though, that since identity and symbolism are highly subjective and transformative, finding an exact answer to any of these questions makes it all the more perplexing. The complexity of timeframes, locations and group of people/individuals associated requires a study more in-depth in nature, which we have tried to achieve through the course of this paper. Despite the ambiguity that appears in the literature and from the fabric we observed on field with regard to the various designs and names of this fabric, we decided to list down its various names, in various settings.



Map 1: Trade Routes of RMHK

Source: Made using Scribble Maps

The RMHK Nomenclature

Sr. no.	Name	Origin of name	Context
1	Real Madras Handkerchief	British traders	Real- Because other countries produced imitations Madras- Because it was exported from Madras Handkerchief- Because the British sold it in that size to save on export duty/ literally translated from <i>Rumal</i> in Hindi
2	Madras	Portuguese traders	Portuguese traders sold this cloth under the name of the port town it was exported from
3	Madras Checks	Unknown	Checks are the most popular RMHK design
4	Real India/ <i>Injiri</i>	The Kalabari tribes in the Niger delta	<i>Injiri</i> translates to Real India, ‘that which is made in India’
5	George/ George Cloth	Other parts of West Africa	The fabric was exported from Fort George of Madras during the British era, hence known to traders by the said term
6	Bleeding Madras	The United States of America	The colours ran when fabric was washed due to the natural dyes that were used- it was a huge marketing gimmick at a certain point
7	<i>Pattimarapu</i> , later <i>Avayyar</i>	Weavers	South India- mainly Andhra Pradesh
8	<i>Urumal/ Rumal</i>	Portuguese traders	<i>Urumal</i> used in Masulipatnam for wiping face of deities was exported by Portuguese as <i>Rumal</i> to Hajj pilgrims
9	Madras Shirting	Chirala weavers	Most of the fabric was exported as material to make shirts
10	Guinea stuffs	1700s usage	Predecessor to RMHK

1.3 Research Statement

“To study the evolution of the Real Madras Handkerchief, its manufacturing processes and significance in India”

1.4 Aims and Objectives

- To observe the traditional handloom and modern weaving processes of the fabric- It is through this comparison that we want to gauge how vast the difference has been in the process over time
- To study the cultural understanding of this fabric in Andhra Pradesh and Tamil Nadu- by trying to assess how aware people are of the fabric today, through interviews and interactions with the locals
- To enumerate the regions where the fabric was exported and study the trade network
- To examine the changes in the lifestyle of the handloom weavers due to the shift in the weaving process as a result of the advent of power looms
- To enquire into the shift in the consumer markets and its consequence on the fabric due to changing economic and political conditions in these regions
- To review the involvement and recognition of government and private organizations
- To ascertain the various designs that constitute RMHK

1.5 Pre-field Hypothesis

From the literature review, we had found a glaring lack of information on local usage of the cloth. It was confounding, because if it was made in India, we assumed that the fabric would hold some sort of cultural significance in India, given that it has been an important fabric for different cultures across the world. Thus, our pre-field hypothesis was based on the assumption that there would be some significance of the cloth in Andhra Pradesh and Tamil Nadu, and studying this significance was one of our primary aims. Another assumption that we had was that people in these areas wearing checks, did not know the history of the fabric they were using so routinely. Given its history and major symbolism in different societies, we assumed that it would have more implications around its place of manufacture, to the local population and the weavers.

What we believed was that, the Real Madras Handkerchief would have a certain cultural significance around its place of manufacture, to the locals or to its weavers.

1.6 Research Methodology

To fulfill the above aims and objectives, our research methods were both quantitative and qualitative. We have tried to use both empirical and interpretive approaches to our research topic, as some aims require us to base our analysis on data and facts and connect the different variables. These different variables in the context of our research were the weavers who were the independent variables. They are one of the most important to our research. The dependent variables like the consumers, market trends and designs were other variables that we tried to understand with the help of this research. Thus we have used a combination of research methods that target specific groups of people on the basis of their role in the making, selling and consumption of the cloth. The method of sampling we used was random mainly based on convenience and snowballing techniques. The stakeholders we targeted were as follows:

1.6.1 Handloom weavers and power loom workers

The weavers and the power loom workers were the main target group of our research. We aimed to use the focus group interview method to get information about the fabric from them. The weavers worked in groups in weaving clusters and would add to each other's responses, providing collective information, rendering this method useful. From them, we aimed to find out about the weaving process, their earnings and the economic impact of the decline of handlooms on their lives. But, on field, we had to use an unstructured personal interview method with each weaver, as we found that they operated from their individual homes. Hence, while most of our questions remained the same, our method and interaction was very different.

1.6.2 The exporters

Semi-structured interviews were used to get information from the exporters. Most of the exporters are settled in one area of the Chennai export cluster. Hence we visited one of the major RMHK exporting companies there. We covered themes such as the state of the current market, the designs currently in trend, the government's role in the trade in terms of subsidies or tariffs, and any changes they observed in trade patterns. This was an important aspect to

cover, since RMHK is chiefly exported.

1.6.3 The locals

The locals were the most scattered sample in our target population. Thus, we planned to choose our target group based on random sampling. We aimed on distributing questionnaires with both open-ended and close-ended questions aimed at understanding awareness levels of the people vis-à-vis the fabric. However, this task not successful due to time constraints. Instead, we interacted with them via unstructured interviews and conversations.

1.6.4 The textile historians, scholars, designers, government officials and other stakeholders

For this sample, we used semi-structured interviews, mainly aimed at getting information about history, relevance and the current-day scenario of the fabric. These perspectives helped us gain clarity about the cloth itself- its evolution and designs.

Mainly semi-structured interviews were used, as this method allowed us to keep our questions focused to the aims we wanted to cover while at the same time allowing the flexibility of delving deeper into one aspect or diverting to a connected topic that would enrich our understanding of the topic.

1.7 Limitations

The following are the limitations of our research:

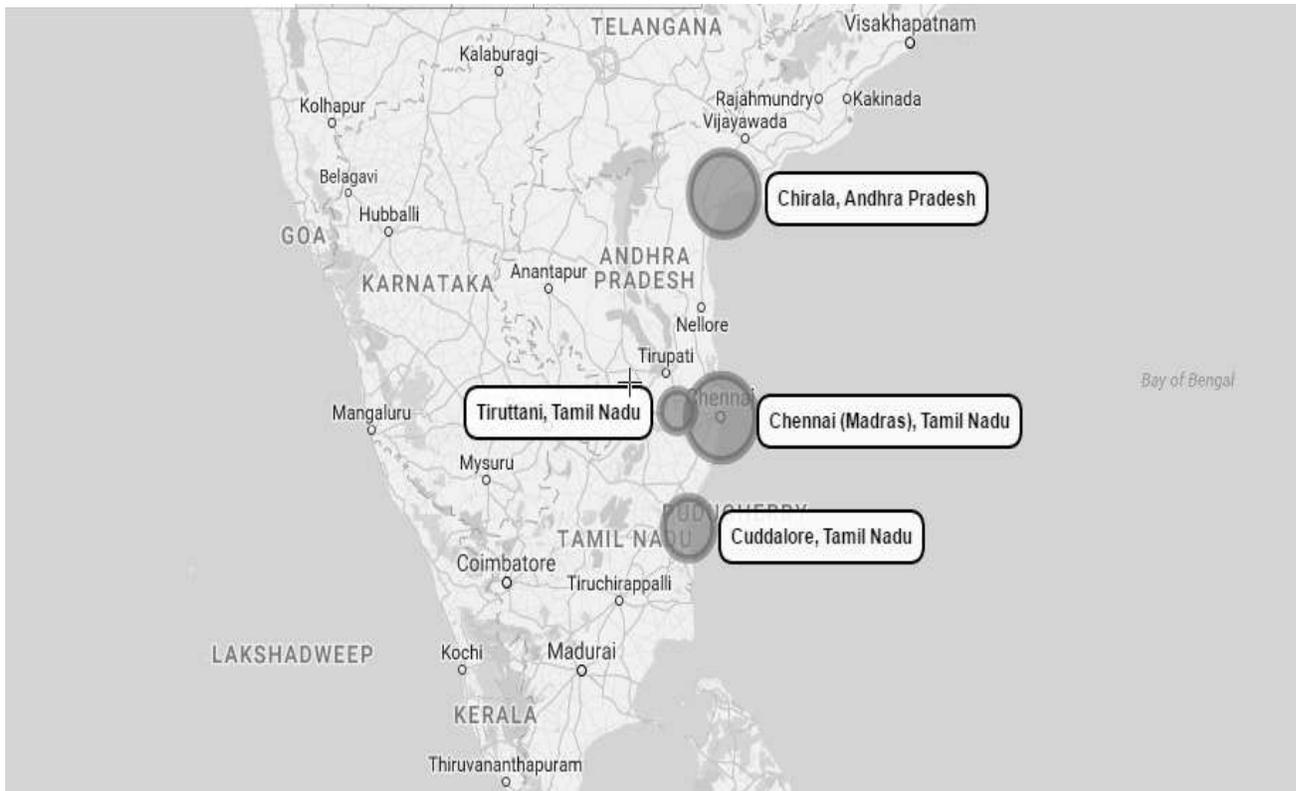
1.7.1 Power loom clusters in Salem and Erode have recently boomed in their production of RMHK. However, we were looking to study both the power loom and handloom manufacturing process. Due to time and logistical restrictions, we did not visit these areas of production.

1.7.2 Lack of academic research from the local perspective was another limitation to our study. A large portion of the secondary sources contains information predominantly about RMHK in cultures outside India. Those that talked about India mainly dealt with trade history.

1.7.3 Our consumer survey was done on a very small sample size. Hence it is not fully

representative of the entire population.

1.7.4 RMHK has travelled across continents and made its place in the lives of people far from its origin. Due to this, the symbolism attached to the cloth has changed over time and space, along with the designs and patterns. Therefore, the designs are multifarious and the evolution is arduous to trace.



Map 2: Our research route

Source: Made using Scribble maps

1.8 Rationale

People define their communities in various ways that make them indigenous and express themselves through different forms. One such form, which is visual and can be appealing, is through the fabric they choose to wear. The first thing that attracted us as researchers to this fabric was its symbolism across various cultures. Through the passage of time, the fabric has transformed visually and has had varying connotations across different contexts. The cloth is not just a mere product of the handloom or power loom machines but is a representation of

beliefs, identity, hierarchies and interactions in society. We chose to undertake this research primarily because the legacy of this fabric is unknown to its homeland. Also, any and all information about this fabric rests within a select community that comprises few academicians, weavers, exporters and the few officials in the textile ministry with knowledge about this fabric. Through our research, we aim to bring the vast data available about the fabric to the public forum and enquire into the contemporary values associated with the cloth, not just in terms of utility but also in relation to sentimental values. This journey was initiated by our curiosity to learn about the history of the cloth and was accelerated by our efforts of gaining a deeper insight of what RMHK is and what it means today.

Literature Review



The literature review looks at the existing research on the different aspects associated with the cloth. It refers to the manufacturing process, historical-cultural significance, the socio-economic aspects and its current-day status. Through the survey of existing literature, the lack of research done on its significance or use of the cloth in India will be highlighted.

2.1 Weaving process of the cloth

Weaving of RMHK is a long, intricate process. Evenson describes this process in her paper ‘Indian Madras: From Currency to Identity’. The yarns were first dyed. The dyeing process for this cloth required the manufacturers to soak the cloth in a mixture of boiling water, soda, stabilizers and salt. The noteworthy spicy scent of the Real Madras Handkerchief came from spices like turmeric, which were used as natural dyes. Currently though, chemical dyes are used. They were then dried outside on horizontal wooden logs. The yarns were then wrapped around a hank stand, wound from it onto bobbins and finally onto a horizontal warping mill (Evenson, “Currency to Identity” 102). A horizontal warping mill is a huge openwork barrel set sideways, its circumference equaling the length of the warp. For RMHK, warps were between 27 and 36 yards (ibid.). After winding, the fresh warp was twisted through the warp ends still through the heddles from a previous weaving. A heddle is used to control the warp yarn’s movements and keep the threads separate.

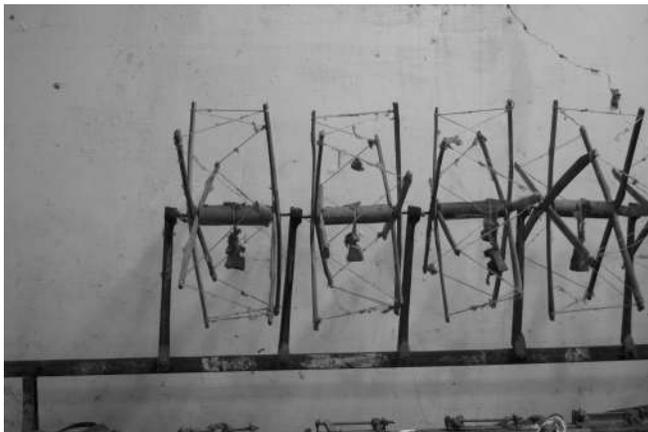


Image 1: A Hank Stand- used to separate threads from a yarn

Source: Discover India Program, 2016-17

After it was twisted on, the warp was stretched full length between sets of posts driven into the ground along the side of a straight thoroughfare. Rice-based starch was applied to the warp to strengthen it. This process was termed as ‘street-sizing’, which contributed to the unique odour that was much loved by the Kalabari. After drying, the warp was then wound into the warp beam of the pit loom.



Image 2: A miniature loom at Dakshinachitra Museum, Chennai

Source: Discover India Program, 2016-17

A pit loom was a fly shuttle loom, called so because it was stationed above a small pit in front of the weaver’s sitting, which allowed the feet to move freely and the legs to work the treadles below the ground. Each family had two or three pit looms and the weaving was done in their individual homes. Everyone in the family contributed to the process.

Madras was woven in a tabby weave, the most basic of the weaves. In this weave, each yarn is interlaced with the next, making the resulting fabric proportionately light and durable. This

weave is easy for checks or plaids, because it shows each yarn's colour proportionately and creates muted effects when two different colours intersect.

To add colour to the natural dyed yarn, the weavers alternated colours of yarn vertically, in the warp, or horizontally, in the filling, to create stripes. Checks were created by alternating two colours of yarn in both the warp and the filling, resulting in a pattern of squares. Plaids were woven the same way, but using a greater variety of colours and in varied proportions. The colour palette was limited: background colours of indigo, red, and burgundy, sometimes dark green offset with white, yellow, and black.

Historically, Madras for the Kalabari tribes was characterized by a 36" repeat, meaning that the order of yarns in a plaid pattern did not repeat more often than 36" inches. The repeat comprised borders creating a 36" square, with eight squares in a twenty four yard (twenty two meter) piece. For other markets, repeats were smaller.

The manufacture of RMHK slowly turned to power looms brought by the British, and is still made on them. Weaving of RMHK on handlooms is fading away.

2.2 Historical and Cultural Significance

2.2.1 The Kalabaris of West Africa

The Kalabari tribes in the Nigerian region are the most important users of Madras. They have a long history attached to it, due to which different variants of the cloth have gained many different meanings in their life (Evenson, “Currency to Identity” 108).

Affiliation of the Kalabaris with Madras can be associated to religion and the Kalabari goddess Owame-Kaso. According to legend, she introduced trade to the first Kalabaris and taught them essential trading skills. Owame-Kaso is believed to have prohibited the Kalabaris from using specific trade cloths that featured vines, flowers, or leaves. This could be why checked and plaid cloth was culturally more preferred by them (Evenson, “Currency to Identity” 108).

The long history as traders of apparel and cloth items in the Niger Delta provided the Kalabaris access to different artefacts, particularly textiles, which they used to distinguish themselves from other ethnic Nigerian groups. The incorporation of the fabric was termed as cultural authentication⁷. Lineage distinctiveness was partly conveyed by display of power and wealth in dress, textiles, and household furnishings obtained in trade (Eicher and Ross, 329).

The dresses made from the Madras cloth were one among several culturally authenticated items for important events in Kalabari life. The Madras fabric became an integral part of the identity of the Kalabaris and families would choose distinct patterns to identify themselves within the particular tribes. Different patterns were also used for different rituals. Some of the different patterns used were, *ikaki mgbe* (tortoise shell) and *kiene* (cane). Initially, the colour palette of the fabric was limited to indigo, red and burgundy while the offset was primarily white, yellow and black. Recurring motifs that featured on the fabric were the cross, bow tie and fish gill, tools that the tribes used commonly (Eicher and Ross, 329).

Specially designed clothes were part of occasions like birthdays and funerals. A father was expected to give a piece of Madras to his infant at the naming ceremony. Cut-thread

⁷ Cultural authentication is a concept developed by Erekosima and Eicher to aid in the description of the transfer of artefacts from one culture to another and how their symbolism changes

wrappers made of Madras were used in funerals. To celebrate the life of an individual during the time of the funeral, family members may choose to borrow many cut-thread wrappers from the extended family to arrange on the funeral bed. They fold them in fancy shapes to display during the week following the burial, when community members call to pay respects to the deceased and the family (Eicher and Ross, 329).

Men and women wear *pelete bite* (Kalabari Cut-thread Cloth) wrappers particularly if they want to identify themselves as Kalabari. Men wear a single wrapper tied at the waist, while the women wear a double set tied at the waist that ends at the knee. Importing items of dress and textile, the Kalabaris were initiating a visible social hierarchy amongst themselves (Eicher and Erekosima, 139-142).

The Kalabari community used the fabric as a tool to indicate hierarchies, which paralleled the political status of the individual, intertwining with the ensemble of the top garment and the wrapper. The young men would wear a shirt called *etibo* with a Madras wrapper. The gentlemen of substance wore the upper garment called *woko* with either a wrapper or matched trousers and appropriate accessories of hat, cane and jewelry. The chiefs wore a gown called *doni* over a shirt and wrapper (Sciama and Eicher, 95-100). The King and chieftains, who were at the peak of the social and political hierarchy, had gowns called *ebu*, made of Madras with a matching wrapper underneath, an outfit by custom reserved for them. The women would buy eight yards of the fabric, put to use six yards and routinely give the remaining two yards to their significant other. Kalabari women were usually bare-chested but used Madras to cover their lower bodies, as was part of the Kalabari decorum. Lineage and social hierarchies were therefore partly conveyed through the attire, which was an integral part of the Kalabari identity (Sciama and Eicher, 100-116). Madras was generally bought in pieces of eight yards (eight squares). Out of those one was used for the headdress, three were used for the lower garment and four for the upper garment. If a man had to ask for a woman's hand for marriage, he would gift her nine squares. The last one square was for wrapping the baby (Dhamija).

Between the seventeenth and the twentieth century, a wide variety of brightly coloured fabrics were shipped from India to West Africa, made even on power looms. There were also imitations coming in from other countries. The Kalabaris had devised certain characteristics

to look out for, which would distinguish Madras from other fabrics (Evenson, “Currency to Identity” 96-108). The factors used to distinguish the fabric from other imitations were the colour, the length and width, the unique odour (till natural dyes were replaced by synthetic ones) and the tentering holes on the handloom woven fabric. Its distinctive folding style and the white weft yarns woven into the cloth to mark the cutting line for a single piece was another unique feature of the authentic Madras (Ibid.).

Each of these characteristics were retained over time so that Madras produced for the Kalabari in the late twentieth century would be revered for generations to come. Each characteristic speaks to the trade history of Madras and its cultural authentication into Kalabari life (Evenson, “Currency to Identity” 108). Within the Kalabari aesthetic, Madras is identified by the way it looks, the way it feels, the way it smells, and some say by the way it tastes. The physical senses were an important set of tools in determining the authenticity of imported textiles. Madras played an important role in the enculturation and constitution of identity for the Kalabari, as they used it in their daily and ritual life (Evenson, “Currency to Identity” 108).



Image 3: A Pelete Bite Wrapper

Source: Daly



Image 4: Kalabari children wearing Madras

Source: Daly



Image 5: Traditional men's attire in the Kalabari tribes

Source: Pinterest

2.2.2 The Caribbean Islands

Textile historian Sabita Radhakrishnan puts RMHK in context accurately: “Madras handkerchief traveled to wherever the slave trade touched” (Snyder, 2015). The Madras fabric arrived at the Caribbean shores along with colonization. However this fabric and its ties with colonization and slavery are what made them part of the identity for people across various Caribbean Islands. Prior to the abolition of the slave trade, the role of Madras as a currency for the slave trade was identifiable. When the fabric became part of the triangle trade between India, Britain and West Africa, Madras was exchanged for the slaves in West Africa. If cloth remained unsold, slaveholders would clothe their plantation workers in West Indies with the fabric. Post the abolition in 1808, the same system⁸ of trading continued (Owusu, 228-229). Indian and African-Jamaican slaves wore head-ties made of this fabric as a symbol of their distinct identity from the free women of colour⁹ of the islands. Madras served as a ‘tie’ between the culturally and linguistically diverse slaves of the plantation owners (Owusu, 228-229). The head-tie was part of both: Their daily work dress and fine dress for special occasions. This tie was considered socially acceptable at weddings, church or even for the purpose of going to the market. From the 1800s, a series of different kinds of head-ties emerged. Women while working wore the bandana head-tie, while a head-tie tied as a turban was worn more for leisure. It is important to note that the fabric used for the head-ties varied from plain cotton to real or imitation Madras checks. The latter is a significant detail, as Madras checks have become the foundation of Jamaica’s national dress. The head-tie acquired an aura of simplicity that was representative of building a community relationship based on historical roots, colonialism and aspiring for a different identity from the colonisers (Owusu, 228-229).

Madras also became an important constituent of the French Creole identity and culture. It has become part of the national costume of Martinique, Guadeloupe, Dominica and St Lucia. In the Caribbean, the discussion of identity has always been a heated one. This is relevant in the case of the French Caribbean *affranchies*¹⁰, who wore the Madras head-ties in order to enhance their self-esteem in the socially and racially divided society they were living in

⁸ the same triangle trade route prevailed

⁹ refers to women of mixed descent who were not enslaved

¹⁰ *affranchies* are women who have been freed from slavery.

(Zamor, 155-160). French women who settled in the islands of Martinique and Guadeloupe wore head-ties of Madras and by the early twentieth century the local women were wearing Madras head ties with the Gwan-wob, the national dress of these islands¹¹ (Zamor, 155-160). The Guadeloupeans were known for preferring Madras in red, yellow and green while the Martiniquais had a preference for pastel shades like pink and blue with black borders (Dakshinachitra resources). The national dress of St. Lucia and Dominica called the *chemise-jupe*¹² consists of head ties made of Madras along with a white cotton blouse and lace skirt below a skirt on the top made of Madras. More recently, the people here have used the Madras cloth for craft, decoration and advertisement. It is interesting to note that the name “Madras” was also given to a drink in the island of Guadeloupe (Zamor, 155-160).

The French women who settled on these islands wore hats while the free women of colour chose the Madras fabric for their head-tie in order to differentiate themselves. These islands share a common history, national costume, Creole language and cultural expressions. The different styles and peaks in the Madras head-tie suggested a woman's marital and social status. These head-ties were tied in different ways as signals for men in the islands of Dominica and St Lucia (Zamor, 155-160). The wrapping process produced some beautiful peaks in the head-tie. “In Dominica, one peak on the head-tie denoted, ‘my heart is free’. Two peaks denoted, ‘my heart is engaged but you take a chance’, while three peaks denoted, ‘I am married’. However in St Lucia, the peaks had different meanings. One peak denoted, ‘I am single’, two peaks denoted, ‘I am married’. three peaks denoted, ‘I am a widow or I am a divorcee’ and four peaks denoted, ‘I accept everyone who tries” (Zamor, 155-160).

During its early days on the islands, women above the age of fifty used Madras. In the twentieth century Madras was no longer restricted to a woman's marital and social status. The trend changed over time resulting in men and children also wearing Madras in the form of shirts (Zamor, 155-160).

In the West Indies, the increased widespread usage of Madras as a head-tie led to the assimilation of the headdress and cloth into the same word- Madras. Here, Madras also

¹¹ Gwan-wob is the French Creole word for ‘grand dress’.

¹² French for shirt-skirt

became a unit of measure¹³. Besides, for head-ties, Madras made of silk was used as scarves wrapped around the neck (Dakshinachitra resources). It was during festivals and carnivals that Madras took on great significance, as people would socialize during these events, giving women a chance to put on display their various meaningful head-ties (Ibid.).

Madras clothing shows up in depictions of slavery in many movies as well as books including Harriet Beecher Stowe's classic novel of slavery in America, Uncle Tom's Cabin, as well as eighteenth century paintings of slaves in the French Caribbean colonies. However, since the beginning, it has always been associated with the identity of coloured people in the West (Snyder, "Check Republic").



Image 3: A Guadeloupian woman showing one of the many Caribbean head wraps

Source: Article- Trip Down Memory Lane

Image 7: Traditional Dominican Gwan Wob

Source: Creole Traditional Dress Carnival Opening Parade

¹³ the square piece of fabric whose dimensions remain constant served as a point of reference. E.g.: seven madras are needed for a dress..

2.2.3 The United States of America

Madras, specifically, Bleeding Madras shirts, were quite a popular item in the United States of America for a long time. The Madras cloth was an integral part of the American Preppy culture. Strangely enough, it has enjoyed a very supernova-like existence; beginning from simple origins, reaching its peak in American history and finally reducing to nothing but vacation-wear. It became a very important symbol of distinction between the rich and the poor Americans at its peak (Schneider).

The earliest references to Madras cloth in America were made in 1718, when Elihu Yale, the then Governor of Madras under the colonial rule, donated several bundles of plain Madras muslin cloth as an endowment to the Collegiate School of Connecticut in New Haven. It must hence, not come as a surprise to know that this college soon came to be known as Yale University, named after its biggest donor. No other mention exists in the eighteenth century (Schneider).

In the 1900s America was going through its toughest period, the Great Depression of the 1930s, while some countries were breaking away from Colonial rule to become independent nations. Madras had now become the symbol of exclusivity that distinguished the affluent from the working class. The Bahamas and Bermuda Islands in the Caribbean were important British trading outposts where the Madras cloth was very popular during this period. When the wealthy Americans went for a Caribbean vacation, they returned sporting Madras checks as an overt symbol of their ability to afford an expensive vacation while the rest of the world barely managed to survive (Schneider). Their kids, who went to Ivy-League universities, showed off their newly bought, yarn-dyed, hand-woven fabric. Campuses of Yale, Harvard and many other universities were soon covered with students wearing plaid, striped or check patterned clothes in bluish/black, off white and red/orange combinations because it became popular, not only because of its exclusivity, but also due to the peculiar smell of vegetable dyes and sesame oils with which the fabric was dyed (Schneider).

An enterprising American textile importer, William Jacobson, sensing a thriving business opportunity thus travelled to Bombay in 1958 in order to source the cloth from its origin. He met the Late Captain C. P. Krishnan Nair (founder of the Leela Ventures Group) with whom he struck a dollar-a-yard deal to buy 10,000 yards of Madras cloth. Captain Nair informed

Jacobson to wash the cloth gently with cold water, failing which he knew the colours would run off (Dakshinachitra Resources). This information however did not pass on to Jacobson’s customers- one of them being the Brooks Brothers, who had already launched their line of Madras suits and shirts in America.

When news came of angry customers wanting to return their purchases, Jacobson and Nair hired David Ogilvy, the famous advertising manager, who came up with a revolutionary idea of turning the fabric’s disability to its advantage. He made an advertising campaign that was titled, “*Guaranteed to bleed*”. An excerpt from a 1966 advertisement is testimony to this (Snyder “Check Republic”):

[Authentic Indian Madras is completely hand woven from yarns dyed with native vegetable colorings. Homespun by native weavers, no two plaids are exactly the same. When washed with mild soap in warm water, they are guaranteed to bleed and blend together into distinctly muted and subdued colorings.]



Hathaway imports authentic India Madras

THIS SHIRT is made of India Madras, which is the real stuff, woven by Indian craftsmen on their handlooms. Each piece is only eight yards long—enough for three shirts. The pattern is so original, so you will never see another man wearing the same shirt as yours. One of the great charms of INDIA MADRAS is that the colors bleed so prettily—blend and blend as they come. The original patterns used by these Indian craftsmen aren't completely identical—they take a little, with washing and mending. This gives the shirt a look of good breeding and maturity which no manufactured fabric can ever equalize. The shirt cost \$14.50 at retail which cuts on the great tradition, as with C. F. Hathaway, Manhattan, New York, New York, telephone ME 4-1117.



Image 9: Label on a Bleeding Madras Shirt

Image 8: An old newspaper advertisement of Madras

Source: Snyder

Source: WeeJun

This campaign became very successful and demand for Madras cloth reached its peak during this decade. Bigger brands such as Ralph Lauren, J. Crew and Abercrombie & Fitch Co. started launching their own spring-summer collections with vibrant hues of Madras shirts, pants, and suits (Colman, 2004). As expected, these clothes faded and lost color when washed, turning the shades into milder and milder hues, which people fancied wearing. A reference to the high popularity of Madras in 1960s was made in the 1990 Hollywood film- 'Miami Blues' set in the 1960s, where Alec Baldwin, playing the role of a psychotic killer, is shown wearing tight Madras pants (Colman).

But, as Madras became popular, its bleeding nature did not remain necessary for its demand. Hence, Madras cloth was then produced using colourfast dyes that did not bleed. By the 1970s, Madras cloth was produced in large scales in power looms instead of being hand woven. Then, all of a sudden, Madras cloth became out of fashion and trade dropped exponentially. By the 1980s, the name 'Madras' had disappeared out of the American market (Colman). Although, people still do wear the Madras cloth in America, they do not associate it with the 'smell' and 'bleeding' of the original Madras cloth, but rather as a resort vacation or country-club attire due to its breathable fabric, which exists in various tones, making it ideal for different seasons. In an attempt to revive the once-popular cloth, Belgian designer Dries van Noten, dedicated his entire spring 2005 collection to experimenting Madras cloth with contemporary fashion, but it did not meet with any success (Colman).

Most of the literature that discusses these cultural significances in these regions looks at the Real Madras Handkerchief from a, for lack of a better word, foreign point of view. The cloth has always been explained in the context of what it meant to these cultures and regions, and not so much in the context of what it is or where it comes from. Also, most of the existing literature on the cultural aspect is not very recent.

A varying extent of information exists related to the cloth. Given that the Kalabaris are the most important consumer base of the cloth, more amount of scholarly research exists in relation with them. There are many blog posts and articles about Bleeding Madras shirts in America, but little academic research has been conducted. Also, most of these blogs talk more about the trivia associated with it, like the innovative marketing strategy, but do not delve much into the history or making of the fabric.



Image 10: Madras Checks incorporated in the American preppy culture

Source: Skyes



Image 11: Some trends of patchwork Madras

Source: Braverman

2.3 Socio-Economic Significance

Evenson mentions that the barter system of trade that operated in most parts of the world allowed Madras to have strong trade associations between various communities globally. Even before the Europeans came to India by the seas, the Arab traders had already come to India through treacherous inland routes passing the Himalayan Ranges stretching across Central Asia (Evenson, “Role of Middlemen” 92). Arabs came to trade Indian cloth for gold, which they would further take to the Malay Archipelago region in order to trade the cloth for their spices (Ibid.). The communities in this region loved the complexity of design work done on fabrics along with vivid colors in which the cloth was available. The Arabs could easily conclude that Madras cloth would be a great item for exchange which was more valuable than gold to the Malay inhabitants.

For European traders, Madras was used as exchange for slaves, who were then bought by plantation owners in South America, the Caribbean Islands and the USA. Any unsold Madras left with European traders was used to clothe these slaves. After the abolition of slavery, this market suffered and production fell (Ibid.).

The introduction of advanced power looms such as jacquards was another factor that led to a fall in the production of Madras cloth in India. Till the late 1990s, the manufacture of Madras cloth on handlooms was undertaken on a large scale in many parts of Andhra Pradesh and Tamil Nadu, especially in the Chirala belt in Andhra Pradesh consisting of many towns and villages in an 8-10 km stretch. It is mentioned that the earliest jacquard power loom that came from China to Chirala was in 1974 (Niranjana, 555). Yet, the communities of weavers in Chirala region have stood the test of time and have evolved with changes in their industry. They have moved from weaving Madras cloth to other cotton clothes such as saris, *dhotis* and *lungis*, which are in high demand in South India. This is also why many weavers from surrounding regions such as Nellore, Chittoor, and Ongole who migrated here in search of temporary jobs in times of crisis in their hometowns, chose to permanently settle in Chirala.

Niranjana mentions the way in which the industry for Madras cloth was organized (Niranjana, 555). With the introduction of power looms, merchants in Chennai started exporting Madras cotton made on power looms under the name of handlooms. As a result, in order to make competition fair, weavers in Chirala also started to weave on power looms

using the tie and dye jacquard pit loom weaving method. In this method a loom is fitted on top of a pit inside the weavers' home or weaving sheds. Hasthinapuram and Vetapalem were among the most famous regions for weaving Madras cloth where small weavers would weave the cloth as per the specifications of a master weaver, who would in turn sell the cloth to merchant dealers in Chirala and Chennai. Hasthinapuram in the Chirala belt was famous for weaving the 40-count Madras cloth.

A small weaver could get anywhere from Rs. 350 to Rs. 750 for one yard of cotton cloth, depending on the complexity of design (Ibid.). The shop dealers were instrumental in informing the master weavers about which designs were in demand, according to which he ordered the cloth from smaller weavers. However, with the passage of time, master weavers had accumulated a lot of wealth in their exchanges between small weavers and shop dealers. They would give out very low wages to small weavers suggesting weak demand in the market among many other excuses, while suggesting scarcity of supply to dealers, thereby extracting money from both parties. As a result, many small weavers became weaker and became indebted to the master weavers. This led to the formation of shed looms, where eight to ten pit looms were fitted close together on which small weavers worked long hours (Ibid).

Some weavers tried to organize themselves into cooperative societies but could not bear the power of master weavers and dissolved within a few years of establishment. These cooperatives tried to manufacture other types of cotton cloth such as saris, etc. With the passage of time, when the exports for Madras cloth declined, even master weavers shifted from weaving Madras cloth to other fabrics that were in demand (Ibid.). In recent times, there are hardly any private handlooms or sheds that continue to weave Madras cloth and almost all of them have shifted to weave other cotton goods such as *dhurries*, saris, *lungis* etc.

Most of this information about the conditions is recorded in one government document. This highlights the fact that there has been little work done, academically or otherwise, on the weavers who make this cloth and of what value it is to them (Ibid).

2.4 Contemporary scenario

Today, RMHK is used for many different purposes. New designs may be used for furnishing fabrics and saris with RMHK. RMHK, alongside Imitation Madras is exported chiefly to

West African countries such as Benin, Nigeria, Ghana, Sierra Leone, Gambia and Liberia, from where it finds its way to surrounding countries such as Southern and Northern Cameroon, Dahomey, Ivory Coast, Guinea, Senegal, and to many other places in Central Africa (HEPC Report 2014-15).

Exports to other parts of the world have declined drastically. Power looms made the mass production of identical weaves viable, because they worked with a fixed set of patterns, allowing more people to buy into the image of the Madras-wearing bon vivant. By the 1970s, Western markets had already turned towards machine-made Madras, though the Nigerian market for handloom checks remained robust. In 1985, the Indian “Handlooms Reservation Act” gave protected status to checked cotton *lungis* with a minimum width of 43 inches, but the same status did not extend to RMHK, woven at a width of 36 inches (Snyder “Check Republic”).

According to a government source, Tamil Nadu’s state-run retailer of textiles woven on handlooms, the vast majority of fabric now called Madras checks—some 90 percent, is woven on power looms, either in India, China or Bangladesh (Ibid.).

Following are some identifiable features that the US Federal Trade Commission has provided for its citizens to identify the Madras cloth (Ibid.):

- 1) The cloth must originate from Chennai (earlier called Madras), India.
- 2) The same pattern must exist on both sides of the cloth.
- 3) The cloth must be hand dyed after it is spun into a yarn.
- 4) The cloth must have irregular thickness, as it is hand-woven, causing bumps or ‘slubs’.
- 5) The cloth must be carded; not combed, during weaving.
- 6) The fabric may contain patches- collation of different fabrics to make a bigger material.

Unfortunately, India does not have such parameters set and neither does it have laws in place for the revival of production of this fabric. According to the 2014-15 Handloom Export Promotion Council (HEPC) report, exports of RMHK have fallen 32 percent from the preceding year.

The popularity of Madras has not been as well documented in India as it has been for other countries. While a lot of academic research has been done on the use of Madras in West Africa, and many blogs and fashion articles talk about Bleeding Madras in America till date, information related to this fabric in India is limited to tables in the Export data and few articles in the national dailies reporting weavers shifting to weaving other fabrics due to fall in demand for Madras. So, while its influence on identities of various communities is seen clearly, what it means to the people who make it and export it is not known. Due to fall in demand, people are either trying to revive the popularity of the fabric, or shifting to other means.

An initiative by Kavita Parmar, the founder of the IOU project, is an example of non-governmental efforts made to promote handloom weaving. The IOU project promotes the manufacturing of Madras checks among handloom weavers in Cuddalore, Tamil Nadu. The fabric woven by them goes directly to the designers based in Europe, who then make a variety of different clothes like shirts, scarves, dresses and also shoes from Madras cloth. These are then sold at trunk shows and on the IOU website ("IOU. Unique Handmade Clothes. Artisanal Clothes India.").

In many other places of production, the story is quite different. The handloom cluster at Anakaputhur, Tamil Nadu, which used to be a hub for the production of Real Madras Handkerchief, saw a fall in the manufacturing of this fabric in the early 2000s. This affected the weaving communities there leading to initiatives by the government to help boost handloom manufacturing in Anakaputhur. The Ministry of Textiles intervened by introducing schemes and monetary help in order to encourage weavers to produce fabric on handlooms made from banana, jute and aloe vera fiber (Manikandan "Weavers of Anakaputhur").

Through the survey of the existing literature, it is clear that RMHK has not been a very important or studied fabric from the point of view of India-- specifically Andhra Pradesh and Tamil Nadu. While multiple perspectives about the cultural symbolism the cloth holds and its use as a cultural currency of sorts exist, no perspective exists for its local significance. This is one gap our research mainly aims to fill.

Field Findings & Analysis



Our on-field observations not only provided new information regarding the contemporary scenario or regarding the fabric, but also acted as a tool for analysing the existing literature. We obtained new information in terms of production process, economic impact on the weavers and the current status of the fabric in terms of design, market and export.

3.1 The Weaving Processes

This section of our research will entail the weaving processes, dyeing and pre-loom processes. Further, the paper progresses to the functioning of the handlooms, power looms and auto looms.

3.1.1 Dyeing and other pre-loom processes

The dyeing process of the yarns itself consists of seven steps. First the white yarns are boiled in caustic soda and then bleached. The chemical dye is then added to boiling water in order for it to mix properly. The use of cold water is avoided as the colour mixes better in warm water. The bleached white yarns are then dipped into the coloured boiling water. If a light colour is desired, the yarns are kept inside the boiling water for a day, whereas for a darker shade they are kept inside for three days. Salt and caustic soda are added to the water as well, so that the yarns absorb the colour and once they are removed, they are treated with acetic acid to give a shiny finish. Finally, these yarns are dried away from the sunlight, either indoors or outdoors, under a shed. The dyeing factories are separate from the place of weaving and are an industry of their own. The dyeing industry provides basic coloured yarns for all fabrics made in the area.

The weavers then acquire these dyed yarns. To start the pre-loom process, these yarns are first separated on the hank stand. These separate threads are then wound up on a 'nada' or 'cartridge' to prepare the weft. The size of the nada increases depending on whether it is being used for a handloom, power loom or auto loom respectively. The nada can be prepared by hand on a wheel, or with advanced machines. With this, the pre-loom process is complete.



Image 12: The dyeing of the yarns

Source: Discover India Program, 2016-17



Image 13: The shuttle or 'nadas' used in a handloom

Source: Discover India Program, 2016-17



Image 14: Women played an important role in many of the pre-loom processes, one of them being winding

Source: Discover India Program, 2016-17



Image 15: However, many such processes have today become mechanized

Source: Discover India Program, 2016-17

3.1.2 The Handloom

The actual weaving of the cloth starts on the loom. We did not observe any major changes in the handloom process according from the literature and from our on field observations. In addition to the details of the handloom process already mentioned in the literature review, we acquired other small details about this process. The warp is made of cotton while the weft is made of polyester, and rayon.¹⁴ On the handloom, it is possible to prepare only half a metre of cloth per day, which requires six hours of labour. The advantages of handloom weaving as stated by the weavers when enquired about the comparison between handlooms and power looms was in terms of the flexibility of the number of colours chosen. While weaving fabric on the handlooms, weavers have the freedom to use a vast number of colours to make patterns while on power looms only four colours could be used at once.

These small details about handloom weaving that we acquired on field helped us analyze the comparison between handlooms and power looms in a different light.

3.1.3 The Power loom

A power loom is a semi-mechanized loom powered by a line shaft. It is run on electricity for all twenty-four hours of the day. The nada is injected onto the shuttle and two to three different colours are set on the warp. The design cards on the side of the machine regulate the size of the checks being woven. One card can hold two threads and set cards are used for more than two hundred threads. Only four colours can be added on the power loom machine. The machines can weave three metres in an hour. Since a typical piece of RMHK is 36" x 36", a white demarcating thread is added after every 36" repeat to mark the separate pieces. One whole cloth was seven metres and twenty centimetres long, comprising eight such pieces. A power loom has the capacity to make six such pieces of cloth in a day. These cloths are then folded eight times as per the piece size. The folding pattern is a crucial step as it is a marker of good quality fabric. If the piece of cloth bends after folding it is considered to be of bad quality. These machines run throughout the day, and the workers generally work in eight to twelve hour shifts. The workers inserted the nada, set the design card, pick loose threads on the machine and remove the cloth once it is woven.

¹⁴ Rayon- a textile fibre or fabric made from regenerated cellulose (viscose)



Image 16: The power loom machine

Source: Discover India Program, 2016-17



Image 17: The human touch is still required in both power looms and auto looms

Source: Discover India Program, 2016-17



Image 18: The design card that sets patterns on the power loom

Source: Discover India Program, 2016-17

3.1.4 The Auto loom

The most mechanized of the three, this loom is fully automatic and runs on electricity as well. All processes are carried out on the machine, from inserting the nada, to keeping the thread count and design length, to the woven cloth wound in bales attached below the loom. The machine also has an automatic alarm system that rings every time there is some problem due to which the machine stops.

A maximum of four to six colours can be added on this loom. The fastest of the three, one auto loom can make a hundred metres of cloth a day. The workers man the machine for twenty-four hours a day on ten to twelve hour shifts. They do all the pre-loom processes and attend to the machines when it stops working due to technical glitches.



Image 19: A worker manning the auto loom machine

Source: Discover India Program, 2016-17

3.2 Weavers' situation

During our field visits we travelled to towns like Tiruttani in Tamil Nadu and Nagari, Chirala, Vetapalem, Jandrapeta and Hastinapuram, all in Andhra Pradesh in order to meet weavers. The literature we went through clearly mentioned that RMHK was preferred as a handloom woven fabric. However, we could not come across any handloom weaver continuing the weaving of the fabric in these former prominent regions for RMHK weaving. Despite its decline, all of the manufacturing has moved on to power looms.

Hence all the questions we asked weavers, who at one time in their lives wove the Real Madras Handkerchief, revolved around the changes in their lives and their situation post the advent of power looms.

With regard to handloom, the weaving of any fabric would take place in the weavers' homes, with a corner or room dedicated to the pit loom. However in the case of power looms, there would be about 6-7 machines in a room, typically at the far end of the house with doors, to keep the roaring sounds inside. Weavers in different towns have different requirements and reasons for what they weave and how they weave it. Some weavers get orders from government associations like APCO (Andhra Pradesh State Handloom Weavers Cooperative Society) or other non-governmental weavers' associations while others weave the fabric and sell it by themselves, locally. The independent weavers are generally handloom weavers, as power loom machines are expensive to own. The fabric made to export is given to the exporters through the associations who act as middlemen between the manufacturer and seller, which today are mainly West African countries. Produced primarily for exports, this fabric is made on a much larger scale on power looms. As for weavers who continue to weave on handlooms and sell independently, the amount of cloth made is much less in comparison.

The exporter communicates the orders and preferences of the consumers to the weavers' association president who then communicates this to the master weaver. The master weaver passes on these orders and designs to his weavers who do the actual weaving.

The master weaver provides the weavers with raw materials, for which he sometimes receives funds from the government associations or the exporters. The weavers under him do

not have to invest in the materials. As for the independent weavers, they have to invest in the raw materials by themselves.

Political influence also plays an important role in the determination and division of receiving funds and subsidies to the associations as well as independent weavers. Localities and associations with strong political ties receive electricity subsidies, which promote the use of power loom machines and they may even be supplied with cheaper raw materials.

Many weavers expressed the fact that weaving was a skill that was passed on through generations to them while observing their parents and this was all they wanted to do, and as a matter of fact could do, to earn a livelihood. However, when the question of handlooms versus power looms was put forth in front of them, they had various perspectives to talk about.

In an interview with V. Ganesan, a 79-year-old handloom weaver from Tiruttani, he expressed his sentiments towards the current state of handloom weaving. As this is what he has been doing all his life, he continues weaving even in his old age as a means to run his home as well as for a hobby. His wife helps him in the pre-loom process while he performs the remaining weaving process. He is an independent weaver who has shifted to making cotton saris since the past few years. He weaves up to one sari per day for which he earns Rs. 110. He mentioned that Rs. 85 of his daily earnings go in food and accommodation, leaving a



Image 20: V. Ganesan, a handloom weaver from Tiruttani

Source: Discover India Program, 2016-17

meager sum of Rs. 25 for himself. The next generation of his family has moved on to weaving on power looms or has acquired jobs in nearby towns and cities (Ganesan).

As for some of the weavers we interviewed in Chirala and the nearby towns of Vetapalem, Hastinapuram and Jandrapeta, where all the villages wove Madras until 20 years ago, Santam a 62 year old handloom weaver said his family had moved on to weaving *pattu cheera* saris. He wove Madras for ten years before switching to silk saris about twenty years ago, when the orders stopped coming in from exporters. In order to shift to a different fabric, he mentioned no new skill set was required and that there were more profits in shifting to weaving *pattu cheera* saris rather than RMHK at that time. Most of the orders he received were from APCO (Santam).

In an interview with the president of Subhodaya Weaving Society and weaver, Mr. Srinivas Rao, he expressed his opinion on the current day weaving situation and his past experiences. He had started weaving at the age of 10 and currently weaves for about sixteen to seventeen hours per day. Being an independent handloom weaver he generally weaves five meters of cloth per day and makes sales in a local market, without the help of government associations. After major orders for Madras or Madras Shirting (as he repeatedly called it) reduced drastically, he continued making checks to sell locally and not to export. In favour of handloom weaving, Mr. Rao states that handloom weaving has more varieties with regard to the outcomes as compared to power looms. He also conveyed his sentiments about the mass weaver suicides in Chirala during the year 2001 where more than forty weavers killed



Image 21: A message at the gate of of Subhodaya Weaving Society

themselves due to their inability to pay off debts. This was primarily due to the expensive nature of investment in power loom machines (S. Rao).



Image 22: The team after an interview with Mr. Macharla Mohan Rao (right chair)

Source: Discover India Program, 2016-17

Mr. Macharla Mohan Rao, a former weaver and current weavers association head confirmed that RHMK or *Pattimarpu*, as it is locally known, has been woven in Vetapalem since 1640, in the form of checks. In Chirala more than half of the women are weavers (Mohan Rao). According to him, just like children get property from their fathers, even weaving is passed on in a similar fashion. Depending on market dynamics, weavers in the Andhra Pradesh belt- Chirala, Vetapalem, Hastinapur and Jandrapeta- work for about ten to fourteen hours every day. There were sixteen thousand units in Chirala at a given time that were dependent on weaving RMHK. But fluctuations in the rupee value between 1989- 1994 changed the income of the weavers as well as the rate of exports of RMHK from Chirala. This was another cause of the mass weaver suicides in Chirala and also led to death due to starvation among weavers. Between 1990-1991 the rupee value was low and exports had to increase in order to balance out payments. According to Mr. Macharla Mohan Rao, the unaware weaver, who was completely dependent on hard work along with a low understanding of other

economic aspects, became a victim to India's unseen economic situation. At a given point, weavers in Chirala only wove RMHK. After the increase in demand of other fabrics like saris and *lungi* material, traditional RMHK looms have shifted to weaving these other materials (Mohan Rao).

Apart from financial problems, weavers that work on both handlooms and power looms face various health related issues. Some health issues faced by the handloom weavers include knee pain due to working on the pedal in the pit loom, eyesight problems due to manual threading and malnutrition. Lack of protein rich food and inconsistent eating hours led to chronic starvation among the weavers. The growing poverty caused numerous health problems which sometimes resulted in women having to undergo hysterectomy surgeries, due to lack of nutrition (Mohan Rao).

In his attempt to explain his stand on the handloom versus power loom discussion, Mr. Rao mentioned the rhythmic working of the handlooms, which is pleasing to the ears with the weaver making music by pulling the threads and paddling. Even though the effort put into power loom weaving is less, the weavers prefer the stimulating sound of the handloom. When it comes to power looms, the rhythm becomes a roar. For weavers who work in power loom mills, which could last for more than twelve hours, the noise has caused depression. Besides this, the noise pollution also has a negative effect on the brain and eardrums that leads to deafness. For most of their lives weavers made a livelihood because of RMHK. But now, Mr. Rao conveys, they hope for a better future.

Most of the people we spoke to see the future as a time where they are not limited to earning through handlooms, where they can earn enough to fund the education of their children and lead a better life. However, they also have sentiments attached to handloom weaving, which they believe will not die out even with the rise of power looms.

3.3 Design

The Real Madras Handkerchief encompasses several designs under its name; it is the plain, the bordered and the checked. The fabric incorporates many designs: embroidery, Ari work, Ikat, gold embroidery, and Gujarati style mirror work to name a few. It can be made of cotton, art silk, velvet or jacquard. The only fundamental that ties all these different patterns and designs together is the measurement- 36” x 36” and the export Centre- Chennai (Madras). Another important criterion was that the fabric was to be made on handloom but power looms have gained a larger share of the market since the past few decades (field notes).

There have been a number of changes in the way Madras has been woven over the years. The labourer involved in the making of the fabric has also had an effect on the end product. For instance, initially the children in the family would help in designing the fabric by pulling the threads manually. When the jacquard machine came into existence, the children had the opportunity to attend school. This shift in the process of making the fabric resulted in less of an effort required and variance in designs.

There is no linear progression or explanation for why there are so many different and distinct designs. This is mainly because there has not been any proper documentation of the varieties over the years. All literature that we came across predominantly discusses checks and mentions the other designs in passing. Thus, creating criteria for checking why these many different designs exist is exceedingly difficult. Then again, creating these distinctions is purely a scholarly exercise. The people who have been making it, selling it and wearing it do not dwell upon these issues. To them, the cloth holds a value of its own, and thus this cloth has survived for over five centuries. The main reason for this listing is to address one of our major gaps that we faced during our on-field research. It is also for the convenience of the readers and ease of future research, that we have catalogued many of the different designs that constitute RMHK. This categorisation of designs is an academic exercise undertaken to understand the variations in designs. The different designs mentioned below were extremely popular in the 1990s (Thiagarajan; Pridhvi). It should be brought to notice that all these designs were sold simultaneously and the variety in the designs was a result of the different

consumer demands.

The Gujarati style mirror work embroidery was a style that developed in the 1990s. The fabric was a reflection of how design and production occur in transnational textile trade between India and West Africa. It was the mirror work and embroidery that bound Madras, Gujarat and West Africa which otherwise have their own defined language, culture, religion and political boundaries (Lutz). The RMHK fancy is a cotton handloom fabric with decorative borders, while the jacquard is woven in rayon yarns. Both RMHK fancy and jacquard, were available in plain and embroidered versions. The gold embroidered velvet was produced in India for the Kalabari market. There was a demand for replication of the Indian velvets by the West African wholesale buyers, which led to the production of the gold embroidered velvets (Lutz).

Image 23: Motifs on an RMHK bag

Source: Discover India Program, 2016-17



Image 24: Borders of a crown symbol on RMHK

Source: Discover India Program, 2016-17



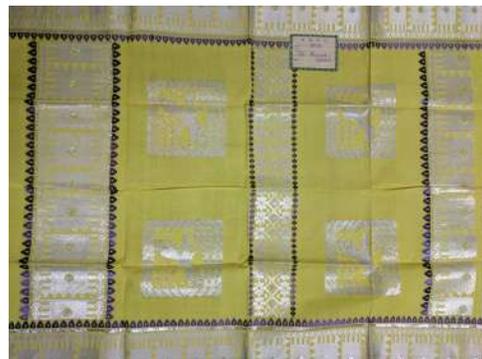
Image 25: RMHK sample

Source: Dakshinachitra Library



Image 26: Art silk RMHK

Source: Discover India Program, 2016-17



Apart from these designs, Ikat work was also done on checked RMHK based on consumer demand and Ari work came in due to Gujaratis settled in areas where RMHK was made, in Andhra Pradesh and Tamil Nadu.

The embroidered RMHKs, Fancies, and velvet textiles were distinguished as different designs manufactured in Madras. The segregation was not made in terms of the many Indian ethnic traditions from which the hand-woven fabrics, embellishment techniques, and design motifs originated. The identification of these different designs were made by trade names like *Injiri* and George. These names were shared by wholesale buyers and manufacturers-exporters or specific to the relationship between wholesale buyers and West African consumers.

The weavers wanted to bring about a change in the design of RMHK and started observing the environment around them. This observation produced an array of new designs that ranged from that of birds, trees and animals. The interaction of the weavers with nature paved the path for a new face of the fabric (Mohan Rao).

Despite the existence of all these designs, checks have always been the most prominent pattern sold. To its most important buyers, the Kalabaris, the checks or the cross hold great symbolism- not as a Christian symbol, but as a tribal symbol (Dhamija). In an interview with Ms. Kavita Parmar, she mentions that checks have always been a timeless design. The combination and mixing of colours on surfaces and lines; and the rhythm and variety in repeat set the checks apart from the other patterns.

The check pattern is generally square. If the warp and weft stripes are of the same width, a checkerboard pattern is obtained. Checks can also be asymmetrical due to the irregularity in the colour repetition in the horizontal and vertical lines. Checks can be of many kinds- there is Gingham, Tartans, Madras Checks, and Windowpane Checks to name a few. These are differentiated by the length and breadth of the checks, their spacing, and layout. Gingham is a medium-weight, balanced, and plain-woven fabric made from dyed cotton or cotton-blend yarn. The colouring is on the warp yarns and is always along the weft.

Image 27: Motifs on RMHK sample
Source: Dakshinachitra Library



Image 28: Zari on RMHK sample
Source: Dakshinachitra Library



Image 29: Plain RMHK
Source: Dakshinachitra Library



Image 30: Checked RMHK
Source: Discover India Program, 2016-17



Image 31: RMHK with art silk embroidery
Source: Discover India Program, 2016-17



Image 32: RMHK with motifs
Source: Discover India Program, 2016-17



(Blackstone, Stern and Prest). Tartan is a pattern consisting of crisscrossed horizontal and vertical bands. Tartans were originally woven in wool, but now they are made in many other materials. The Scottish Tartans are particularly famous in this regard. The plain graph type checks are identified as Windowpane checks and they have no colour filling (Blackstone, Stern and Prest). Madras checks are different from these patterns in many ways. For one, these checks are multilayered. They appear to lie on several levels against the background because two or more checks are superimposed. The warp and weft pattern is identical, but the colours used from warp to warp and warp to weft change, creating a blended muted effect. These checks are arguably the oldest (Dakshinachitra resources).

The *lungis* of South India are the most popular check material in the region. These checks are properly spaced, even squares, and are mainly blue and white. What differentiates this cloth from other check patterns is that it is made only with cotton and much thicker in weaving count than the rest. Indians prefer thicker material and hence RMHK is not popular in India. The counts on RMHK are far fewer than those on *lungis* (Pridhvi).

As for the colours that were used on RMHK- indigo and red were the most popular. The Kalabaris still prefer these colours along with other strong bright colours like yellow and orange. The Americans preferred the same colours in the 1960s when Bleeding Madras was popular, though, currently, they prefer mainly lighter colours like lavender, baby blue, baby pink etc. In the Caribbean islands, especially in the West Indies, people prefer mainly orange and yellow (Ibid.). Enquiry into the reason as to why these particular colours are preferred is a research project in itself. This study would be based on the usage outside India and requires a study of each market's cultural preferences specifically.

As evident from our analysis of the different designs that constitute RMHK, there is no clear line of thought, which can be followed to trace the different patterns. All these designs have their own context of development and their trajectories run parallel. The variance in the patterns, borders and motifs are a reflection of the weavers' efforts to adhere to the change in time and consumer demands. Hence, setting one parameter as to what is considered RMHK would be ineffectual.

Image 33: RMHK with Ikat border
Source: Dakshinachitra Library



Image 34: RMHK with shapes
Source: Dakshinachitra Library



Image 35: Striped and checked RMHK
Source: Dakshinachitra Library



Image 36: Bordered RMHK
Source: Dakshinachitra Library



Image 37: RMHK in traditional colours (indigo and red)
Source: Dakshinachitra Library

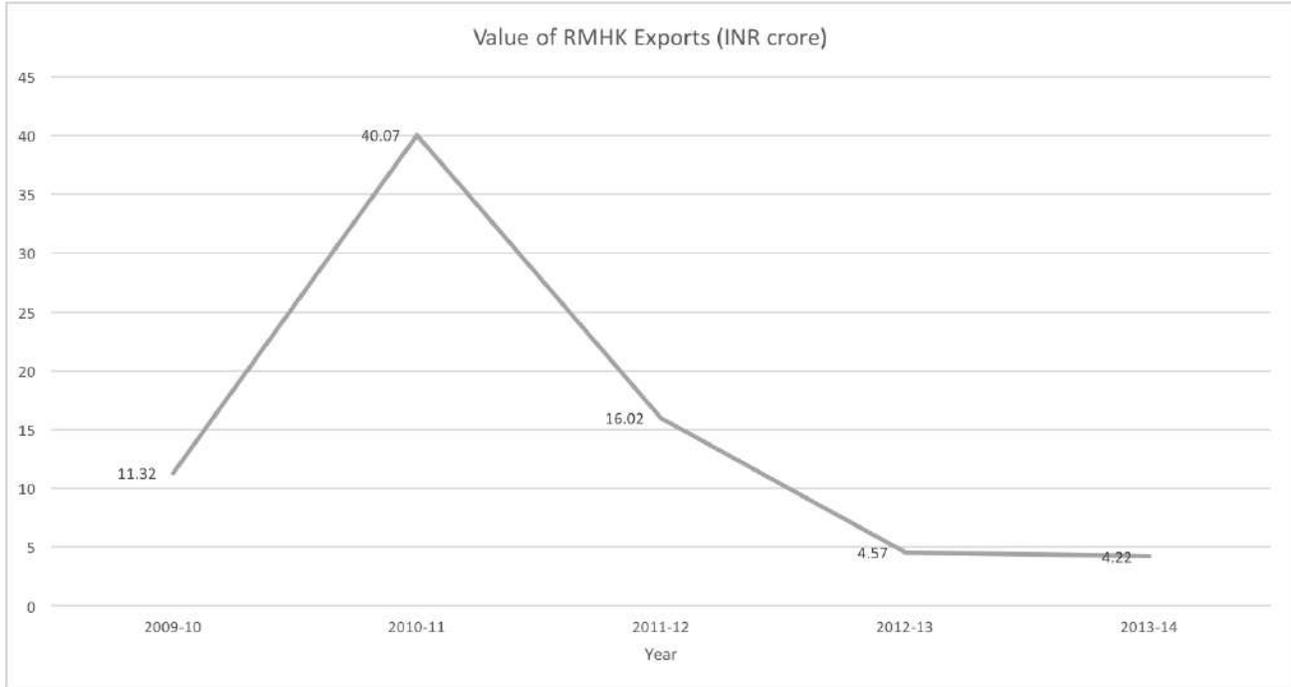


Image 38: Gujarati embroidered RMHK
Source: The Hindu



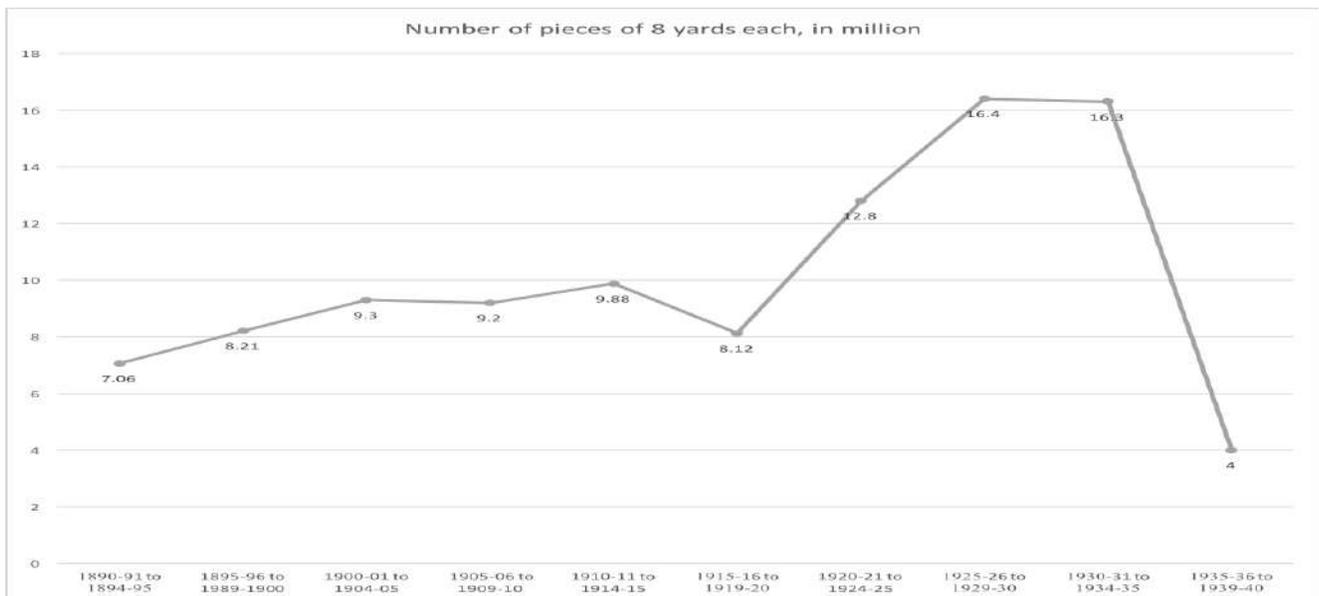
3.4 Trade

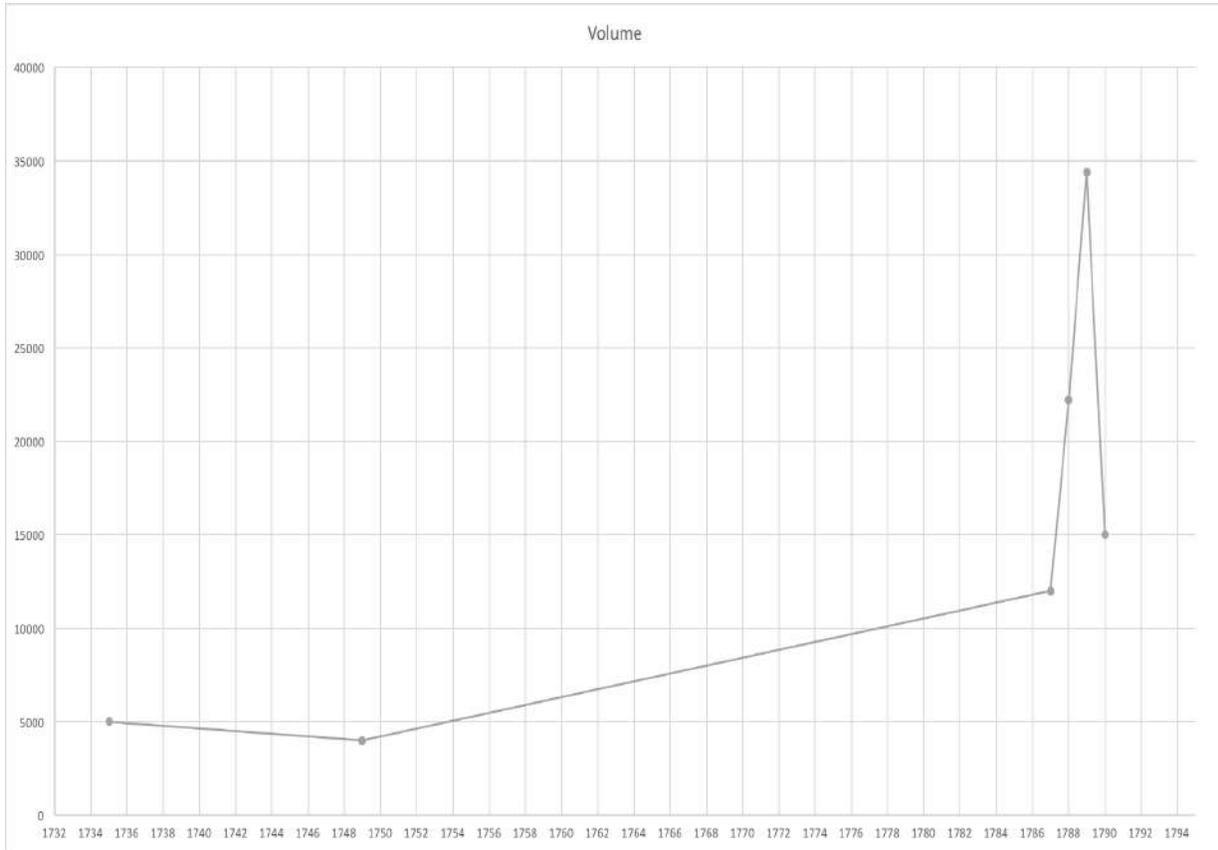
With the changes in the trade routes and patterns over centuries, this aspect of RMHK has been one that has had effect on the design as well as the socio-economic conditions of the weavers. The RMHK trade follows a complex path in multiple ways. One of the key features of this trade is its reliance on the end consumer for survival of the fabric as well as the business. It is strenuous for any business to survive when the entire demand works on unpredictable patterns. Mr. Raj Pridhvi, the son of the proprietor of Bala Handlooms Exports Company, one of the very few companies still exporting RMHK, illustrates this specific feature of fluctuating demand. The demand pattern is volatile and has an effect on the weavers as well as the exporters. It has been observed, there is a significant demand of the fabric for two to three years consecutively following a sudden fall in the demand. The orders usually involve large quantities of single patterns made to export. So the weaving does not halt instantly once orders from the importers discontinue. The order of the exporter will be completed by the weaver, because of which stockpiles of the fabric remain with the exporter, since they cannot be exported anymore. According to Mr. Raj Pridhvi, not a single piece of fabric has been exported from their company in the past two years. All of it is stored in large godowns, of which we saw about four rooms full of various designs and patterns of RMHK stocked. The reasons for this are the general market trends as well as ample supply of the fabric with the importers after mass purchase, which may sustain in their local markets for two to three years (Pridhvi).



Graph 1: (Above) Value of RMHK exports from India. Time period (2009-10 to 2013-14) (Handloom export Promotion Council of India Yearbook)

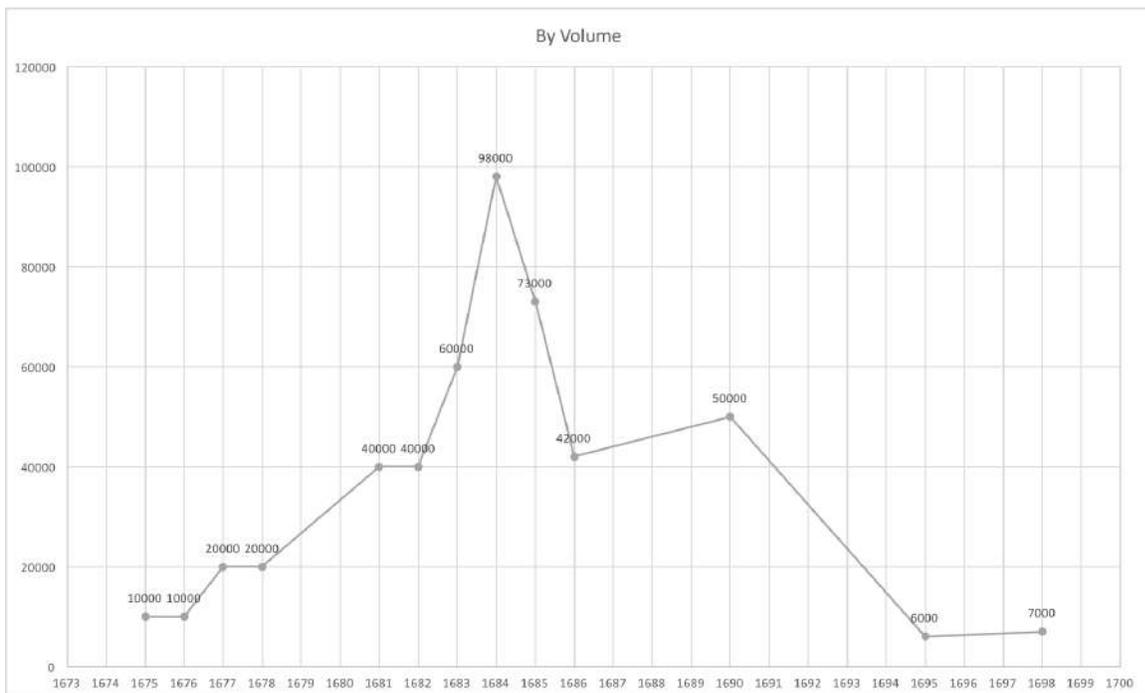
Graph 2: (Below) Quantity of RMHK exports from India. Time period (1890-91 to 1939-40) (Dakshinachitra Resources)





Graph 3: Trade of RMK between exporters in Masulipatnam and England. Time period (1732-1794) (Dakshinachitra Resources).

Graph 4: Trade of RMK between exporters in Masulipatnam and England. Time period (1673-1698) (Dakshinachitra Resources).



The main inferences from these charts suggest and illustrate the previously stated irregular patterns of this trade. The graphs are from different timeframes explaining the uncertain nature of the industry.

As discussed earlier in the paper one of the main reasons for the preference for RMHK since the beginning was essentially due to its characteristic of being a handloom woven fabric. Through our on field observations and conversations with weavers, we found RMHK was being woven only on power looms and auto looms. The handloom weaving of RMHK began to cease about 20 years ago, with a minority of weavers continuing the weaving of this specific fabric on handlooms.

3.4.1 Market Orientation

The cloth is only exported from Madras even though it is made in Andhra Pradesh and Tamil Nadu. The primary markets for the fabric are Nigeria, the USA and some Caribbean Islands. The disparity in income and propensity to change is different in the United States of America as compared to Nigeria. According to the HEPC record book, the USA has been the top importer of handloom fabrics from India since 2009-10 ("Top 10 Countries | Handloom Export Promotion Council").

The Nigerian market for this fabric is important because the fluctuations in the Nigerian economy can be correlated to the overall change in RMHK exports, as it is the primary market.

This uncertainty in the purchase behaviour is due to the consumption power of the Nigerian economy, which is highly dependent on the oil reserves, keeping in mind it is a member of the Organization of the Petroleum Exporting Countries (OPEC). Since 1972, on an average, 23.85 percent of the Nigerian GDP is dependent on oil exports. Since the export value of oil has fallen, it has resulted in lower GDP per capita, which has had an effect on the capacity to import fabric into the country. The GDP of Nigeria in 2014 was 568.5 million USD; it fell to 481.07 million USD the very next year ("WTO | Understanding The WTO Members").

This is an export intensive industry; therefore, currency exchange rates play a fundamental

role in the aspect of real income of various stakeholders. Both Nigeria and India are signatories of WTO agreement and believe in the essence and practice of free trade. It is because of the phenomenon of free trade that the prices fluctuate according to the changes in market like consumer demand. For example, due to some unforeseen circumstances if the value of the Indian Rupee (INR) increases against the Nigerian Naira (NGN) the capacity of the buyers to purchase RMHK reduces. Subsequently, if the NGN increases against INR, the income that trickles down to the weaver reduces significantly.



Image 39: A discussion with Mr. Raj Pridhvi, Exporter

Source: Discover India Program, 2016-17

3.4.2 Peripheries of trade

While there have been mentions of the historical context of the trade route, it is important to understand the existing trade mechanism and the various agencies which contribute towards its betterment. The current trade pattern follows a rather similar route, like the triangle trade back in the day. Exporters, in specific Bala Handlooms Export Company, in Chennai consolidate the goods from various parts of Andhra Pradesh and Tamil Nadu. The fabric is then taken to Singapore and is exported to Algeciras in Spain from there. From Algeciras, it is sent to the USA, Nigeria, the Caribbean islands and other parts of Europe (Pridhvi).

The Handloom Export Promotion Council of India (HEPC), which is a part of the Ministry of Textiles, Government of India, is the government's agency for handloom promotion. As shown in Graph 2, the export data from the HEPC 2015-16 yearbook shows a clear decline of

RMHK. Even though the body's function is to promote export of handloom fabrics, RMHK is a highly consumer dependent fabric, which makes it harder for them, as suggested by Mr. Ram Murthy Naidu, the Assistant Director of APCO.

Handlooms have been one of the primary components of India's rich cultural heritage. The prime example of this is the symbolic Swadeshi movement led by M.K. Gandhi on Khadi. Also, this industry is highly supported in India, because Indians have been historically dominant in trade of textiles. The Government of India, with intention to support 43 lakh persons in weaving and allied services (Handlooms Census of India 2009-10) works on multiple schemes for the handloom and power loom weaving. Some of the most important ones are:

a) Mahatma Gandhi Bunkar Bima Yojna (2007-08 to 2017-18):

The main idea behind this scheme is the contribution of insurance premium by various entities for supporting handloom weaving. Life Insurance Corporation of India and the Handloom Departments of the respective states jointly administer the scheme. The main eligibility criterion for this scheme is that 50 percent of the income of the weaver should come from handloom weaving. In addition, the weaver should be between the ages of 18 to 59 years. The insurance premium is the real crux of the scheme. The insurance premium is split as 290:80:100 from the Government of India, the weaver and LIC respectively. One insurance premium adds up to be Rs. 470. This scheme provides for Rs. 60,000 in case of natural death and Rs.1, 50,000 in case of accidental death. Total disability and partial disability also invites Rs.1, 50,000 and Rs.75, 000 respectively. The additional benefits include a Rs.1, 200 scholarship for up to two children of the weaver per year ("1236").

This scheme stands imperative because of two major reasons. Firstly, it is because the activity of weaving is physically intensive. The wellness and fitness of the weaver is more essential than in most cases. Secondly, as we observed on field, the weavers are the sole breadwinners for most families. In addition, education is the primary long-term solution available for them to alleviate their standard of living.

b) Amended Technology Upgradation Fund Scheme (TUFS) (2006-07 to 2017-18):

This scheme was launched in the 2006-07 Budget under the UPA government. It was

recently amended in December 2016. The primary objective behind TUFs is to reduce the capital requirement for the textile industry in order to make it more competitive. Ten percent upfront capital subsidy for specified textile processing machinery is reimbursed. RMHK falls under the sub sector category of the scheme and commands a subsidy at a rate of ten percent, subject to a ceiling of Rs. 20 crore for entrepreneurs over a period of five years (Jha). Mr. Ram Murthy Naidu, Assistant Director, APCO has also mentioned this scheme (Naidu).

The key reason as to why this scheme is necessary is that weaving has heavy setup costs and it takes a considerable time period to break even. This situation of non-payability of loans worsens if there is a lull in the market, which is a general phenomenon in this industry. Also, on a situational level, moneylenders levy heavy interest rates on the weavers who usually receive loans from them. Mr. Naidu mentioned that seven thousand and six hundred weavers are covered in this scheme under his area, Vijayawada ("Amended Technology Upgradation Fund Scheme For Textiles Gets Nod").

c) Yarn Supply Scheme: The yarn being the primary raw material, binds the entire industry together. Thus, proper quality yarn is necessary for the product quality control and export promotion. This scheme is bifurcated as follows:

1. Supply of Yarn at Mill Gate Price: This scheme is implemented under the National Handloom Development Corporation (NHDC). NHDC acts as the provider of the yarn to the weavers directly from the manufacturers. NHDC ties up with suppliers according to the demand specifications. The main assistance provided are the reimbursements of freight (yarn transportation), expenses of operating yarn depots, 10 percent price subsidy on the hank yarn and the service charges to NHDC ("MILL GATE PRICE SCHEME").
2. Investment in NHDC: In order to bolster this industry, the government initiates action via the process of investment. Because of this activity, the ability to draw credit required for NHDC's activities increases. The maximum allocation, which can be made in a year, is Rs.1 crore. The shares are purchased at Rs. 100 fully paid up shares¹⁵ under the name of the President of India ("National Handloom

¹⁵ shares issued in which the entire money is paid to the company/organisation by shareholders in a single go

Development Corporation Ltd.").

This scheme is logistically significant because of two major reasons. Firstly, the authenticity of the raw material is correlated to the reliability of the suppliers. Those suppliers that partner up with the government are trustworthy because of track record and agency benchmarks.

Organisations like NHDC help in their mechanism and functioning, which is vital for the industry to prosper. Henceforth, investment into NHDC is always welcomed.

d) Other Schemes: In our interview with Mr. Naidu, he spoke about the role of the Assistant Director (AD). His/her main job is to be the communication plank between the weavers and the administration. The AD, after sitting in the meetings with senior officers of State and Central Government, goes to the clusters and sub clusters to conduct activities like complain redressal sessions, information sessions etc. Each cluster is an amalgamation of various blocks, which are composed of 650-800 weavers. Chirala region has thirteen of those sixteen blocks in Andhra Pradesh (Naidu).

3.4.3 Policy Framework:

Any policy or scheme runs on predefined lines and specifications. The complexity in the given case is that even though the power loom made RMHK is not authentic to the academic and general understanding of the cloth, the reality is that this market like any other is diverging towards a more cost effective option. It is in the power and auto loom's best advantage to get recognition from the policy makers. As stated in the previous chapters, the socio-economic conditions of power loom workers are only as good as the handloom weavers, if not better.

Secondly, this industry's recognition as RMHK and not *lungi* cloth, tablecloth, etc. has its own economic rewards. This untapped market can be given a volume of its own.

Any business model requires a cushion that faces the brunt, in case of occurrence of a slowdown. Exporters like Mr. Pridhvi are stocking up even during less or no trade activity. In this kind of structure, the exporters are the main stakeholders to receive the direct impact of the reduction in demand. The exporters have a diversified role in this business cycle, for e.g.

communicating the design patterns and consolidating the fabric from multiple producers. Their survival is imperative to many people and their jobs.

Mr. Laxmana Swamy, General Secretary of Epurupalem Weavers' Welfare Association, gave us insights that were critical in our understanding of the implementation status of the various aforementioned schemes. He has been working with various MLAs, the weavers' cooperative societies and with the departments of irrigation and textiles. He has continued his research and efforts in alleviating the grievances of weavers to the higher authorities.

One of the biggest revelations about the Yarn Supply scheme was the lack of sufficient supply of hank yarn. Out of the 43 lakhs only 3 to 4 lakh weavers have access to these hank yarns. In 2003, there was a notification from the Ministry of Textiles referred as the Hank Yarn Obligation Notification. This notification required all the spinning mills in the country to produce forty percent hank yarn out of their entire production. The reason that the spinning mills give is that producing hank yarn is not economical, which is extremely justifiable. Another crucial information he said was the policy paralysis that occurs when the Centre transfers responsibility of execution of schemes without providing for adequate funding to the State governments and authorities (Swamy).

The prime derivation from the entire trade mechanism is that, issues and problems need to be dealt with more pragmatically. Various institutions and schemes are to be directed to achieve the best possible results till the grass-root level, i.e. to the weavers.



Image 40: Mr. Ram Murthy Naidu (second from left) and fellow government officials, APCO, Chirala

Source: Discover India Program, 2016-17

3.5 Reflections

The dwindling state of handlooms and the shift to power looms has caused drastic changes in the life of a typical weaver, in the past decade or two. Weavers who had been totally dependent on weaving RMHK for their livelihood had to move to weaving other fabrics or ultimately become power loom workers.

The government's help in order to promote handloom weaving and weavers includes policies of sale subsidies and loans, half of which were found to be very inefficient in their implementation. All weavers we interacted with on field said that government support was insufficient and not executed properly, and in some cases, partially. Moreover, many policies to address weavers' problems included electricity subsidy. This indicates that precedent is given to power loom weaving over handloom weaving. Even subsidies for materials were implemented in select areas, mostly in Tamil Nadu and not Andhra Pradesh. Many weavers also said that receiving these subsidies depended on whether the MLA was from the political party in power in that constituency. Other policies were mainly loan-based, which again was a problem, as most of these weavers do not have the resources to raise a loan. Thus, government policies need more consideration and better implementation.

As for private initiatives, the IOU Project mentioned previously has contributed to a great extent in order to give Madras checks an international market, and has given the buyers visibility of the weavers, providing clear transparency in the supply chain. Founded by designer and entrepreneur Kavita Parmar, this initiative brings the makers and buyers of the product closer. Ms. Parmar believes in the originality of clothing, which is highlighted through handloom weaving as opposed to store bought clothes that are duplicates of each other and made on power looms. Through this initiative, buyers online can pick fabric and view a profile of the weaver who has woven this fabric. ("IOU. Unique Handmade Clothes. Artisanal Clothes India.").

While the world knows these weavers and their work through this initiative, the weavers' themselves are still struggling to find work. Most of them have stopped weaving, as there are very few initiatives like this one that favour handloom fabric over the commercialized and cheaper power loom alternative. Due to this, exports of RMHK are heavily declining. Most of the RMHK exports that exist today are majorly for the West African market. Even this, as

told by major exporter Mr. Raj Pridhvi, is heavily dependent on the Nigerian economy, which in turn is oil-dependent- as was explained previously in the paper. This puts the cloth itself in a crisis, as RMHK is purely an export-oriented cloth. There is no local market for it, and if exports decline, due to both demand and supply reasons, the cloth will be in a risky position.



Image 41: The stockpiles of fabric that have remained unsold

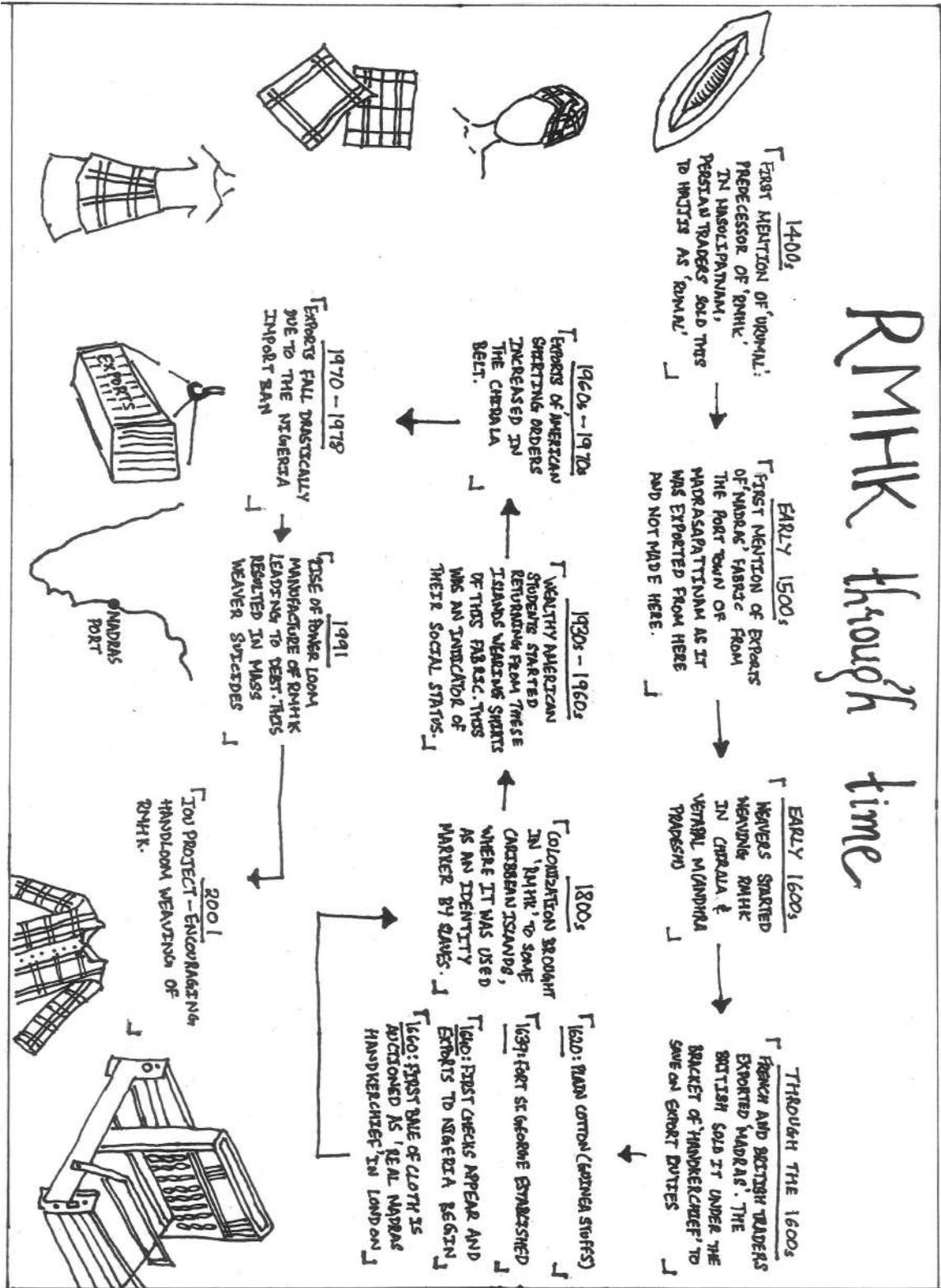
Source: Discover India Program, 2016-17

Even though the production of this fabric has declined today, in the past it has changed the lives of numerous weavers and provided them with a livelihood for generations. The fabric has also stuck loyal to its homeland by keeping true to its name. Called by a variety of different names across the globe, its most popular and recurring name is Madras, the place from where it is exported. The designs of this fabric and its uses may vary according to preferences from across various regions, but the 36” x 36” piece of fabric, sold in a piece of eight yards or eight “handkerchiefs” and exported from Madras remain persistent.

As discussed earlier, the development of technology has caused most of the RMHK woven today to be manufactured on power-looms and auto looms. This makes it imperative to reanalyse the parameters that define the variety of designs and patterns that constitute the Real Madras Handkerchief.

*Next page: Illustration 2: RMHK through time

RMHK through time



Conclusion



The one thing that we were clear about from the beginning of our research was that RMHK is barely being made on handlooms anymore. This raised the question of the authenticity of RMHK today, among us. Our doubt also stemmed from the fact that all the literature undoubtedly discussed that RMHK was handloom woven and was preferred as one, whereas most of the people we had contacted mentioned the prevalence of power loom fabric. Our difficulty in understanding the fabric grew when we saw samples of the fabric that were not particularly checks, or even plain. Some of the samples had mirror work while some just motifs. A majority of the previous literature we went through fails to describe the various other designs in detail. The only details of the cloth and pictures in publications are of the checked RMHK. However this seems inevitable as most of the literature consists of studies done chiefly on the Kalabaris, with a few remaining on the Caribbeans use, the American preference for Bleeding Madras and some for its history and trade in general. In the past, while most of the other designs of RMHK like velvets, plains and embroidered coexisted with the checks, it was the checks that were the most popular in all the above-mentioned places. The dominance of checks is what caused the specific design to become the most recognized pattern of all types of RMHK. For what started off as one of our biggest questions, the true identity of the Real Madras Handkerchief will remain ambiguous, as there may be many more designs that exist than what we were able to come across. As discussed earlier, categorizing and demarcating them is purely a scholarly exercise that does not highlight some of the real worries that come under the context of this fabric.

Over time the cloth has evolved and branched out into various different representations of itself, all under one name: The Real Madras Handkerchief. The plains, fancies and the checked, have all appealed to a variety of consumers over time. The journey of RMHK has been fascinating since its origin in the 16th century. Though little is known about its initial uses, besides that of a cleaning cloth of temple idols in the coastal town of Masulipatnam, the fabric flourished into completely distinctive designs and patterns that took on the world.

With a push from Portuguese, Arab and British traders in its initial years, RMHK travelled to continents far from its unassuming place of manufacture. With weavers of this fabric knowing little to nothing about the whereabouts of the cloth they weave, the fabric became of symbolic and sentimental value to many outside of India. The Hajjis took pride in wearing

Rumals as a sign of return from pilgrimage and paid homage to elders by presenting them with a piece of this fabric. The Kalabaris of West Africa who value this fabric from the womb to the tomb, have developed a sense of loyalty towards it over time, by refusing modern imitations of the fabric and being the main reason for the endurance of this fabric through trade barriers. The slaves working on cotton plantations on islands in the Caribbean resorted to this fabric to maintain their identity as separate from the other people and mark a type of community emblem. Decades later, Americans took a fancy to this fabric as an opportunity to put on display souvenirs from exotic holidays in the Caribbean.

It had been established that these squares in various guises had diversified meanings and denotations across the world. For us as researchers, this is precisely what enthralled us: this diversification of meanings, all from a seemingly simple piece of cloth, from the South of India. However the idea that hardly any research on RMHK from an Indian perspective exists, is what caused our interest to intensify. Our growing interest in the research led us to ponder over questions like, "Why are its interesting tales unknown to its homeland", "What is its contemporary significance" and "How has RMHK changed over the years?" In order to bridge this gap and understand the changes in its designs and process over time, we chose to visit places like Chennai, Tiruttani and the Andhra Pradesh belt. Our study involved talking to weavers, exporters, designers, and government representatives from the Ministry of Textiles, locals, scholars and academicians in order to learn about the Real Madras Handkerchief. Its history is something that we were familiar with before stepping on field, through reading existing literature. However, it was the assumed significance of this fabric that we set out to study. After talking to weavers to get a clearer understanding of their situation, we gained more insights on the problems they faced with the instability of demand patterns and the advent of technology.

Our on field researches made us see the ground reality of the weavers in a different light. Many of the weavers have shifted to power looms while the others have started producing fabric other than RMHK on handlooms. We did not delve further in the handloom versus power loom debate as it would be unnecessary in our context, since most RMHK is not woven on handlooms anymore. Like previously stated, though there are government policies in place for both handloom and power loom weavers, execution of these policies has been

limited, and hence, weavers are losing incentive to continue their craft. This is also due to the limited market that exists for this cloth. Today, RMHK is confined to a narrow strip in West Africa and other markets need to be rejuvenated for the fabric's exports to continue. Exports to its other historical markets- the Caribbean and the USA are close to zero today. Reviving these markets and reaching out to others will take the cloth to great lengths. As for the current situation, exports of power loom RMHK are on the decline even to West Africa, though the demand is expected to rise again in a year or two. Government policies, like those of the Handloom Export Promotion Council, also concentrate on marketing and distribution of fabrics, which is giving the weavers an international platform. But, our on field observations showed that the weavers' incomes are to a large extent not affected by these, and their real income at the end of the day is not increasing.

It was on the second day of our field trip that we interacted with locals in Chennai to gauge the familiarity of the fabric. We targeted a considerably small area but obtained a wide range of results. Some knew where the fabric was produced and did not know what it was called, while for a certain section of people, the case was vice versa. Few people had detailed information about the fabric while some could not even identify the fabric. We observed that people above the age of sixty had a fairly better idea regarding the cloth and the younger generation was not that aware about the fabric. Despite all the uncertainties we faced before and on field, we started believing more in our research when we interacted with other stakeholders, who were very passionate about this cloth, even though they were aware that the market is declining and is now limited to few parts of West Africa.

Through these interactions with the locals, weavers and other stakeholders- we reached one of the key interpretations of our research- the significance of the Real Madras Handkerchief in India lies in its exports. In India, it has created a livelihood for the weavers. It does not hold deep cultural importance to its locals like it does with the Kalabaris or the Caribbean islanders, Preppy American culture or it did to the Hajjis. This was clear on field, as most of the local people we spoke to and asked to identify the cloth, identified it only as a checked cloth or handkerchief, but did not use it in their daily life or actually know what the cloth was. They knew it was cotton checks, but they did not use it, as the thicker lungi material was more popular. Thus, our pre-field hypothesis about the cloth holding some cultural

significance in its area of manufacture was proved wrong. But, despite there not being any cultural significance, we did find out that it holds great economic significance for the weavers. It had provided a livelihood for them, due to which they were sentimentally attached to the fabric. Even the exporters believed that the tradition would not die. Thus, while our assumption about the kind of significance it held was wrong, the cloth was of great importance to all the local stakeholders in their own ways. Studying this aspect was a major part of our on field research, as the focus shifted from its cultural understanding. As has been explained through the course of the paper, this significance is that RMHK is mainly export material and has gained special currency due to this reason. The local significance lies in its global influence.

It was on the fourth day of our field trip we learned that RMHK was not just checks but also patterns, motifs and embroidery work. The fabric was a representation of the beliefs, ideas, faith of not just one community but several. We were a little puzzled, but this made us realize that a closer analysis of all the data we had acquired was required.

Our journey was a path that progressed from a state of immense ambiguity to a sense of clarity, which took place through our on field trip, and collation of data. From all of our research, we gathered that the cloth is not Real anymore, because it is now made on power looms, it is not even made in Madras, just exported from there, and was never exactly a handkerchief. These contradictions are what drew us in, and what we have strived to clarify through this paper. This fabric was like a puzzle to us, of which only few pieces have been fit, while many have been lost in time. What we have realized, though, is that many of these pieces need not fit in, as this is what makes the story of the Real Madras Handkerchief worth being told.

*Next page: Illustration 3: Quotes

FOOD FOR THOUGHT



MACHARLA MOHAN RAO

Weavers Association Representative

"We are proud to say that handloom quality is better, the body functioning is like a rhythm like how a music director produces music, at every stage when the weaver pulls the thread to join the warp and weft along with the padding, is like the Sa Re Ga Ma Pa Da Ne Sa."

"We approach things intellectually, but we don't approach them pragmatically. There is a lot of conjecture and there is a lot of research which has been done. We in India never even knew much about RMHK until others were doing this research"



JASLEEN DHAMIJA

Textile Historian



SRINIVAS RAO

Weaver

"I have learnt the art of weaving from the elders in my family as it was passed on as a family tradition. Our entire life is dependent on weaving. Weavers want to preserve this knowledge and pass on this heritage"

Works Cited

"1236". <http://handlooms.nic.in>. Web. 27 Feb. 2017.

"Amended Technology Upgradation Fund Scheme For Textiles Gets Nod". tribuneindia.com. N.p., 2015. Web. 27 Feb. 2017.

Arabindan-Kesson, Anna. "Threads Of Empire: Art And The Cotton Trade In The Indian And Atlantic Ocean Worlds, 1770-1930". N.p., 2010. Web. 27 Nov. 2016.

Blackstone, William, Simon Stern, and Wilfrid R Prest. *Commentaries On The Laws Of England*. Print.

"Cabinet Approves Amended Technology Upgradation Fund Scheme For Textiles Industry". pib.nic.in. N.p., 2015. Web. 27 Feb. 2017.

Colman, David. "What Hipsters Found In Preppy Closets". *Nytimes.com*. N.p., 2004. Web. 27 Nov. 2016.

Daly, Catherine and Joanne Eicher. "Male And Female Artistry In Kalabari Dress On JSTOR". *Jstor.org*. N.p., 1986. Web. 27 Nov. 2016.

Daly, Catherine. "Iria Bo Appearance At Kalabari Funerals On JSTOR". *Jstor.org*. N.p., 1987. Web. 27 Nov. 2016.

Erekosima, Tonye and Joanne Eicher. "Kalabari Funerals: Celebration And Display On JSTOR". *Jstor.org*. N.p., 1987. Web. 27 Nov. 2016.

Erekosima, Tonye. "Kalabari Cut-Thread And Pulled-Thread Cloth On JSTOR". *Jstor.org*. N.p., 1982. Web. 27 Nov. 2016.

Evenson, Sandra Lee. "The Role Of The Middleman In The Trade Of Real Madras Handkerchief (Madras Plaids)." (1990).

Evenson, Sandra Lee. "Indian Madras: From Currency to Identity." *Berg Encyclopedia of World Dress and Fashion: Global Perspectives*. Ed. Joanne B. Eicher and Phyllis G. Tortora. Oxford: Berg, 2010. *Bloomsbury Fashion Central*. Web. 29 Nov. 2016.

<<http://dx.doi.org/10.2752/BEWDF/EDch10511>>.

German, Deb. "Checkered Past: A Brief History of the Madras Plaid Shirt." *Orvis News*. Orvis, 9 June 2015. Web. 18 Oct. 2016.

Ghosh, G. K and Shukla Ghosh. *Indian Textiles*. 1st ed. New Delhi: APH Pub., 1995. Print.

Haye, Amy De La and Elizabeth Wilson. *Defining Dress: Dress As Object, Meaning, And Identity*. 1st ed. Manchester University Press, 1999. Print.

"IOU. Unique Handmade Clothes. Artisanal Clothes India." *Iouproject.com*. N.p., 2016. Web. 5 Dec. 2016.

Jha, Dilip. "Textile Industry Welcomes Amended TUFS". *business-standard.com*. N.p., 2016. Web. 27 Feb. 2017.

Manikandan, K. "Weavers Of Anakaputhur Get Aid". *The Hindu*. N.p., 2016. Web. 5 Dec. 2016.

"MILL GATE PRICE SCHEME". *nhdcltd.com*. Web. 27 Feb. 2017

"Monthly Newsletter- March 2015". *HEPC India*. N.p., 2015. Web. 27 Nov. 2016.

"National Handloom Development Corporation Ltd.". *nhdcltd.co.in*. Web. 27 Feb. 2017.

Niranjana, Seemanthini and Soumya Virayan. "Report On Growth And Prospects Of The Handloom Industry". *Planning Commission - Govt of India*. N.p., 2001. Web. 27 Nov. 2016.

Niranjana, Seemanthini. "Thinking With Handlooms: Perspectives From Andhra Pradesh On JSTOR". *Jstor.org*. N.p., 2004. Web. 28 Oct. 2016.

"Oil Rents (% Of GDP) | Data". *Data.worldbank.org*. Web. 27 Feb. 2017.

Owusu, Kwesi. *Black British Culture And Society*. 1st ed. Routledge, 2003. Print.

Perani, Judith. "Pelete Bite: Kalabari Cut-Thread Cloth On JSTOR". *Jstor.org*. N.p., 1982. Web. 29 Nov. 2016.

Radhakrishnan, Sabita. "Madras Checks « Madras Musings | We Care For Madras That Is Chennai". *Madrasmusings.com*. N.p., 2016. Web. 27 Nov. 2016.

Riello, Giorgio. *Cotton*. 1st ed. Cambridge: Cambridge University Press, 2013. Print.

Roy, Tirthankar. "Out of tradition: master artisans and economic change in colonial India." *The Journal of Asian Studies* 66.04 (2007): 963-991.

Schneider, Raphael. "Madras Guide - How The Shirt, Pants & Jackets Became Popular — Gentleman's Gazette". *Gentlemansgazette.com*. N.p., 2013. Web. 29 Nov. 2016.

Snyder, Michael. "Check Republic". *The Caravan*. N.p., 2015. Web. 27 Nov. 2016.

"Why Is Buying A "Madras" Cotton Shirt A Political Act? A Feminist Commodity Chain Analysis". *Jstor.org*. N.p., 2004. Web. 27 Nov. 2016.

"WTO | Understanding The WTO - Members". *wto.org*. Web. 27 Feb. 2017.

Zamor, Helene. "Emergence Of The Martiniquan Gwan Wòb". *JSHC*. N.p., 2014. Web. 28 Nov. 2016.

Images

Creole Traditional Dress Carnival Opening Parade, Dominica, Caribbean - 2008. Web. 28 Feb. 2017.

Dakshinachitra Library,. Clicked During Discover India Program, 2016-17. Print.

Daly, M. Catherine, et al. "Male and Female Artistry in Kalabari Dress." *African Arts*, vol. 19, no.3,1986, pp. 48–83

Discover India Program, 2016-17. 2016-17. Print.

Independent Fashion Bloggers,. *Always In Fashion*. 2012. Web. 2 Mar. 2017.

Evenson, Sandra Lee. "Indian Madras Plaids as Real India." *Dress Sense: Emotional and Sensory*

Experiences of the Body and Clothes. Ed. Donald Clay Johnson and Helen Bradley Foster. Oxford: Berg, 2007. 96–108. Bloomsbury Fashion Central. Web. 02 Mar. 2017.

"Kalabari." Pinterest. N.p., n.d. Web. 27 Feb. 2017.

Sykes, Logan, and Alexandra Tunell. "Print Play: The History of Madras Plaid." *Town & Country Magazine*. N.p., 02 July 2015. Web. 27 Feb. 2017.

"The Hindu : Rich Tapestry Of Embroidery". *Thehindu.com* N.p., 2001. Web. 2 Mar. 2017.

The WeeJun,. 1960S Deadstock Bleeding Madras Shirts – A Nice Little Haul. 2014. Web. 28 Feb. 2017.

TRIP DOWN MEMORY LANE. 2013. Web. 28 Feb. 2017

Primary Sources

Name	Place	Designation
Prof. Jasleen Dhamija	New Delhi	Textile Historian
Ms. Kavita Parmar	Chennai	Designer
Mr. Srinivas Rao	Jandrapeta (Chirala belt)	President, Subhodaya Weaving Society
Mr. Macharla Mohan Rao	Chirala	President of a Weavers Association
Dr. Deborah Thiagarajan	Chennai	Director, Dakshinachitra Museum
Mr. Ram Murthy Naidu	Chirala	Assistant Director, APCO
Mr. Raj Pridhvi	Chennai	Bala Handlooms Export Company
Mr. Santam	Hastinapuram (Chirala belt)	Handloom Weaver
Mr. V. Ganesan	Tiruttani	Handloom Weaver
Mr. Laxmana Swamy	Chirala	President of a Weavers Association
Mr. P. Rangaswamy	Chennai	Export Promotion Officer, HEPC
Mr. Gopi	Nagari	Mill Owner

QUILT OF A FORMAL PATTERN

As tenderness, in its gravity, pulls us on—
Driving home into the cave of the valley—
Past black oblongs of wood,
Past grey fog-squares
Blurring the patchwork
Distance from where I am
To the house, a yellow cube;
 So also, on this other checkerboard,
 There are dark squares and red:
 Solitudes of the heart, privacies
 Which cannot be invaded,
 Blue forbidden rooms—
 However much, on the plain of our life together,
 Like colors in a bolt of Madras
 Cloth, longing may lead
 Us on, overwhelm, flood us, and we bleed, bleed.

“We should not become slaves to technology; technology should be in service of us. To me the biggest service a human being can give is to be creative, to give his work to someone else and get satisfaction through that and to me industrialisation has taken that away completely. Because of industrialisation, the focus has gone to quantity and not quality so the question is how can we bring the focus back to quality, how can we make the consumer understand the value instead of just the price and to me that was with the human story. Because at the end of the day, human beings are storytellers..”

- Kavita Parmar, IOU Project

