

Chapter **3**
METHODOLOGY



Artwork created by the researcher for *Sutr Santati* Textile exhibition at
Delhi National Museum

Chapter III

METHODOLOGY

This chapter outlined the tools, methods, and procedures employed to gather information for the study. The research adopted a mixed-method approach, incorporating both descriptive and exploratory research. It provided a detailed description of the methods, techniques, and processes utilized for data collection, analysis, and interpretation.

Surveys, interviews, and observation methods were adopted for the study. Field data was collected from the interior areas of Sikkim, focusing on the traditional textiles and costumes of the Lepcha and Bhutia communities in the state. The methodology for this research has been presented under the following subheads.

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Baseline of the Study

Sikkim, a unique and beautiful state in northeast India, is home to many tribes living in harmony with each other. This state boasts a rich cultural heritage, influenced by its proximity to China, Nepal, and Bhutan. The diverse cultural beliefs and lifestyles of the people in Sikkim reflect the vibrant exchange of traditions and customs across its borders. This cultural amalgamation contributes to the distinctiveness and allure of Sikkim's cultural landscape. The art and craft of Sikkim possess a unique charm, reflecting the rich cultural heritage of this magnificent state. Practised by the local communities, such as the Lepcha and Bhutia, who are indigenous to the region, these traditional crafts hold significant cultural importance. The Lepcha and Bhutia communities are regarded as pioneers in preserving and promoting their traditional crafts, which are deeply rooted in the history and identity of Sikkim. Through their craftsmanship, they showcase intricate skills and techniques passed down through generations, contributing to the cultural vibrancy and diversity of the state.

This state has remained unfazed for a long time, which is one of the reasons why its rich culture has been preserved. The rich textiles and costumes of Sikkim narrate stories woven into their cultural fabric. Crafts such as *Thangka* painting, handloom weaving, bamboo craft,

and woodcraft are integral to the livelihood of the people and contribute significantly to the state's value and pride. These traditional crafts not only showcase the artistic prowess of the locals but also serve as a means of sustaining their cultural heritage. Through intricate techniques and designs, artisans in Sikkim continue to uphold centuries-old traditions. The intricate textiles and traditional attire of Sikkim serve as vibrant narratives woven into the fabric of their rich culture.

3.1 Operational Definitions

3.1.1 Lepcha: The term used in the research for a tribal community of Sikkim. They were also referred to as *Rongkup*.

3.1.2 Bhutia: The term used for the indigenous tribal community of Sikkim. They were also referred to as *Drenjongpa / Drenjop*. *Bhutia* also refers to people of Tibetan ancestry. The community migrated to Sikkim from Tibet.

3.1.3 Sikkimese: Expression used for the people who inhabit the Indian state of Sikkim.

3.1.4 Contemporary fashion: Refer to the current, popular styles that mix street style, high fashion and global influences. This also emphasizes innovation in designs, individuality and modern aesthetics which are appealing to a fashion enthusiast audience.

3.1.5 Exploratory research: Study primarily conducted to gather a broad understanding of the subject due to lack of availability of formalized information. Aiming to identify new ideas, patterns and hypotheses.

3.1.6 Design innovation: It is defined as the process of developing new and improved products and services by applying new creative ideas. In case of this research, talks about adding new and inspired ideas to traditional silhouettes. Aims to improve functionality, user experiences, and market relevance by addressing unmet needs for future generations while keeping the tradition alive.

3.1.7 Capsule collection: Small limited curated set of clothing that was designed to be versatile and allow a range of outfits within the theme. Features a small collection of garments which coordinate well with each other.

3.2 Conceptual Framework of the Study

A preliminary investigation in the context of field research was conducted before the main research project. The purpose of this pilot study was to test the feasibility, validity, reliability, and effectiveness of various aspects of the research design, methods, and instruments. It allowed the researcher to identify and address potential issues before committing to a full-scale study. Given the research objectives, the investigator conceptualized a broad framework for the study. The available literature revealed that different communities in Sikkim State had their styles of dressing, leading to the development of changes in costumes and textiles among these communities. Clothing, as a major area where these changes manifest, was common to all communities. Therefore, it was deemed desirable to study textiles and costumes before they were replaced. Additionally, the study aimed to examine various socio-cultural factors responsible for these changes. **(Figure 3.1)**

Hypotheses of the study

Based on the conceptual framework, the researcher formulated hypotheses for the study: Changes in traditional textiles and costumes of Lepcha and Bhutia communities have occurred due to:

Hypothesis I: Changes in the traditional textiles and costumes of Lepcha and Bhutia communities were due to Education.

Hypothesis II: Changes in the traditional textiles and costumes of Lepcha and Bhutia communities were due to the influence of mass communication and media.

Hypothesis III: Changes in the traditional textiles and costumes of Lepcha and Bhutia communities were due to the merger of Sikkim with India.

Hypothesis IV: Changes in the traditional textiles and costumes of Lepcha and Bhutia communities were due to the influence of neighbouring countries.

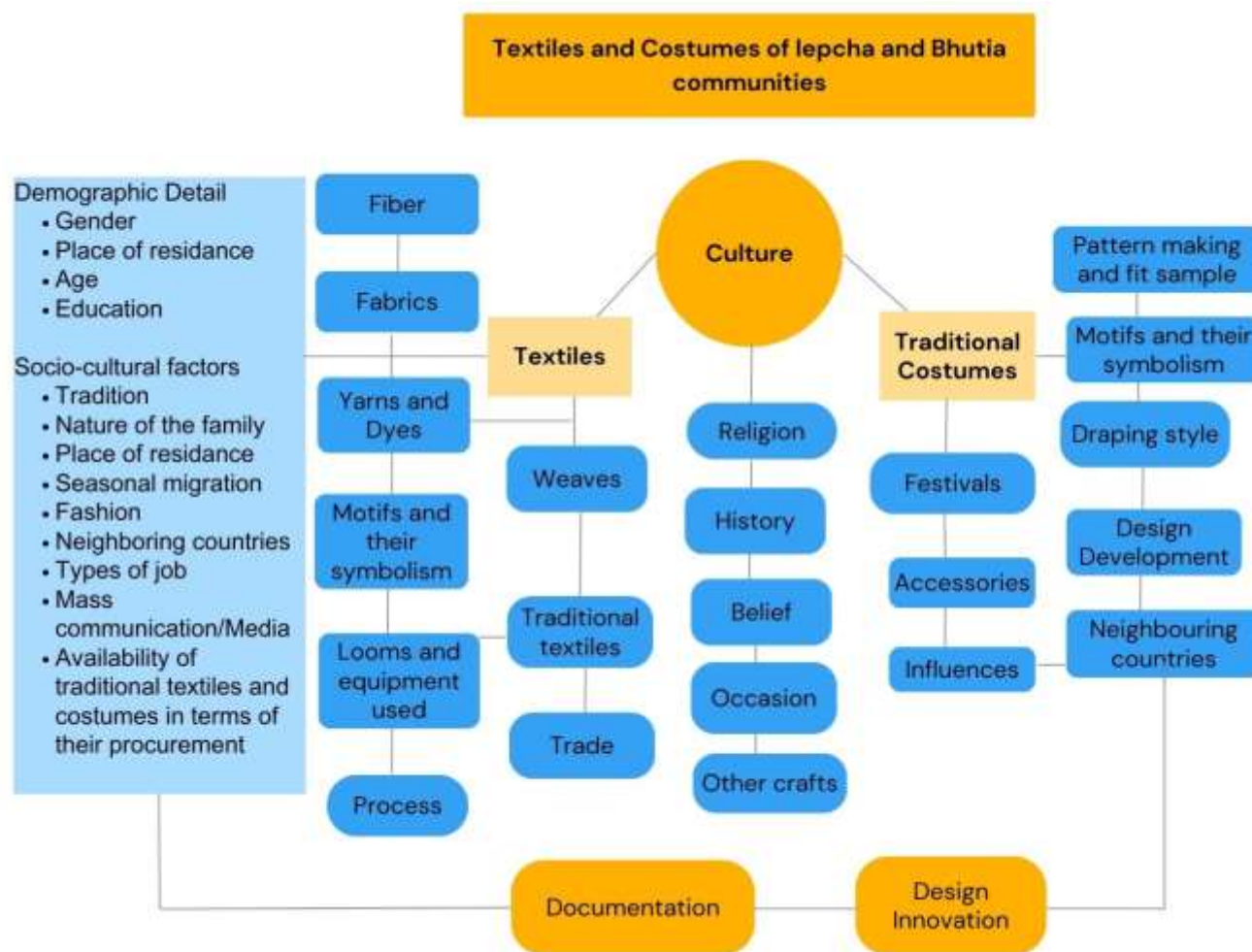


Figure 3.1: Conceptual Framework of the study

To gather data for the study, diverse approaches were employed, including artefact-based analysis, historical exploration, oral history interviews, socio-cultural examination, and content analysis.

- **Artifact-based approach:** This method involves analyzing physical objects, such as artworks, documents, and artifacts, to glean insights into the topic under study. These artefacts have provided valuable historical and cultural context.
- **Historical approach:** By delving into historical records, documents, and archives, the researcher was able to uncover past events, trends, and societal developments relevant to the research questions. This approach helped in the contextualization of the current study within a broader historical framework.
- **Oral history approach:** Conducting interviews with individuals who have firsthand experience and knowledge related to the study offered valuable insights and perspectives. Oral history interviews allowed the researcher to capture personal narratives and accounts that might not be documented elsewhere.
- **Socio-cultural approach:** This approach involves examining the societal and cultural factors which have influenced the cultural phenomenon that was studied. The researcher analyzed social norms, values, beliefs, and practices within Lepcha and Bhutia culture to understand their impact on the study.
- **Content analysis approach:** Content analysis involved systematic analysis of textual, visual and audiovisual materials to identify themes, patterns, and trends relevant to the research objectives. This method allowed the researcher to extract meaningful data from a wide range of sources, such as written documents, media articles and online content.


3.3 Research Design

The research design (**Figure 3.2**) was developed in alignment with the study objectives, considering the availability and limitations of resources such as time, finances, travel, language, communities, and artisans' skill levels at various stages of the study. Overall, the study adopted a qualitative, descriptive, and exploratory approach, utilizing diverse research techniques and tools for data collection. Methods were selected based on the study objectives and the nature of the data. Before commencing the research, the researcher obtained research permits from the Sikkim Biodiversity Board and the Forest Ministry of Sikkim, Gangtok (**Plate 3.1**), as well as inner line permits. Plans were adjusted as needed to overcome

challenges such as accessibility to certain locations. Throughout the research journey, factors like weather, travel, language barriers, COVID restrictions, and financial constraints posed challenges. Unexpected outcomes included difficulties in accessing some communities and weavers during fieldwork and documentation processes. The researcher stayed within the communities to establish rapport with the locals.

The study aimed to document the traditional textiles and costumes of the Lepcha and Bhutia communities in Sikkim. Employing a descriptive research design involving field and literature surveys, the methods were tailored to match the investigative nature and formulated objectives. Emphasis was placed on studying and documenting textile details, costumes, purchasing patterns, and other influences on Sikkim State's craft design culture. Historical and cultural insights were gathered from literature and personal interviews with members of the Lepcha and Bhutia communities. Given the qualitative nature of the research, the study delved into the analysis of conventional costumes from the two communities, adopting an exploratory research design. Descriptive and exploratory approaches were utilized, employing various research techniques and tools for data collection.

Descriptive research meticulously documented textiles and costumes, covering origin, history, production processes, symbolic meanings, visual descriptions, and cultural influences. Exploratory research critically assessed the current situation, comparing it with earlier textiles and garments, while experimental study facilitated new design development, preserving traditional cuts and styles. Data collection tools included insightful interviews, keen observation, and comprehensive photography. This research provides a valuable perspective by blending historical, cultural, and design insights, contributing to a richer understanding of the textile heritage of the Lepcha and Bhutia communities.



GOVERNMENT OF SIKKIM
DEPARTMENT OF FOREST, ENVIRONMENT & WILDLIFE MANAGEMENT
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F. No: 78/GOS/FEWMD/BDR/PCCF/Secy-25 Date: 30/4/2019

RESEARCH PERMIT

With the approval of competent authority and under the provision of the Wild Life (Protection) Act, 1972; Forest (Conservation) Act 1980, Biological Diversity Act, 2002; the rules and regulations framed there under, permission is hereby granted

- TO:** Dr. Anjali Karolia, Guide, Ms. Garvita Sharma PhD Scholar
- FROM:** Clothing and Textiles Department, Family and Community Sciences, The Maharaja Sayajirao University of Baroda, Prof. C. C. Mehta Road, Vadodara- 390002
- C/O.:** Dr. Anjali Karolia, Mob: 9824012643/ 0265-2796523, 8619727171 (extn. 13) Email: anjalikarolia@hotmail.com
- FOR PROJECT:** Traditional Textiles and Costumes of Sikkim: Documentation and Design Intervention
- PERIOD:** April 2019 – March 2020

Research Permit holder shall pay separate Entry fees and other charges (if any) to the respective sectors / RFs / WLPAs including National Park / Biosphere Reserve / Zoological Park.

Area where the license / permit is applicable	Details of Project / Research (kind of study) whether collection is required, etc.
All four districts of Sikkim	Interview with Lepcha and Bhutia communities and exploration of nettle production for their traditional textiles.

The permit is not transferable.

Sd/-
(M. L. Srivastava, FSI)
PCCF cum Chief Wildlife Warden


Specimen signature of the permit holder

Copy to

- Dr. Anjali Karolia, Guide, Ms. Garvita Sharma PhD Scholar
- Principal Secretary-cum-PCCF & Chair REMC
- CF (WL), CF (T), CF (WIP), CF (FCA)
- Director (KNP/KBR)
- Member Secretary (SBB)
- DFO (T, WL & KNP/KBR) East, West, North, South
- ACF (T, WL & KNP/KBR) East, West, North, South
- Office/Field Copy

Note: See terms and conditions overleaf

M. Srivastava
PCCF-cum Chief Wildlife Warden
M. L. Srivastava, FSI
Principal Secretary-cum
Chief Env & Wildlife Warden
Govt. of Sikkim



16th REMC

Plate 3.1 Research permit from Sikkim Biodiversity Board and Forest Ministry of Sikkim for research in all four zones.

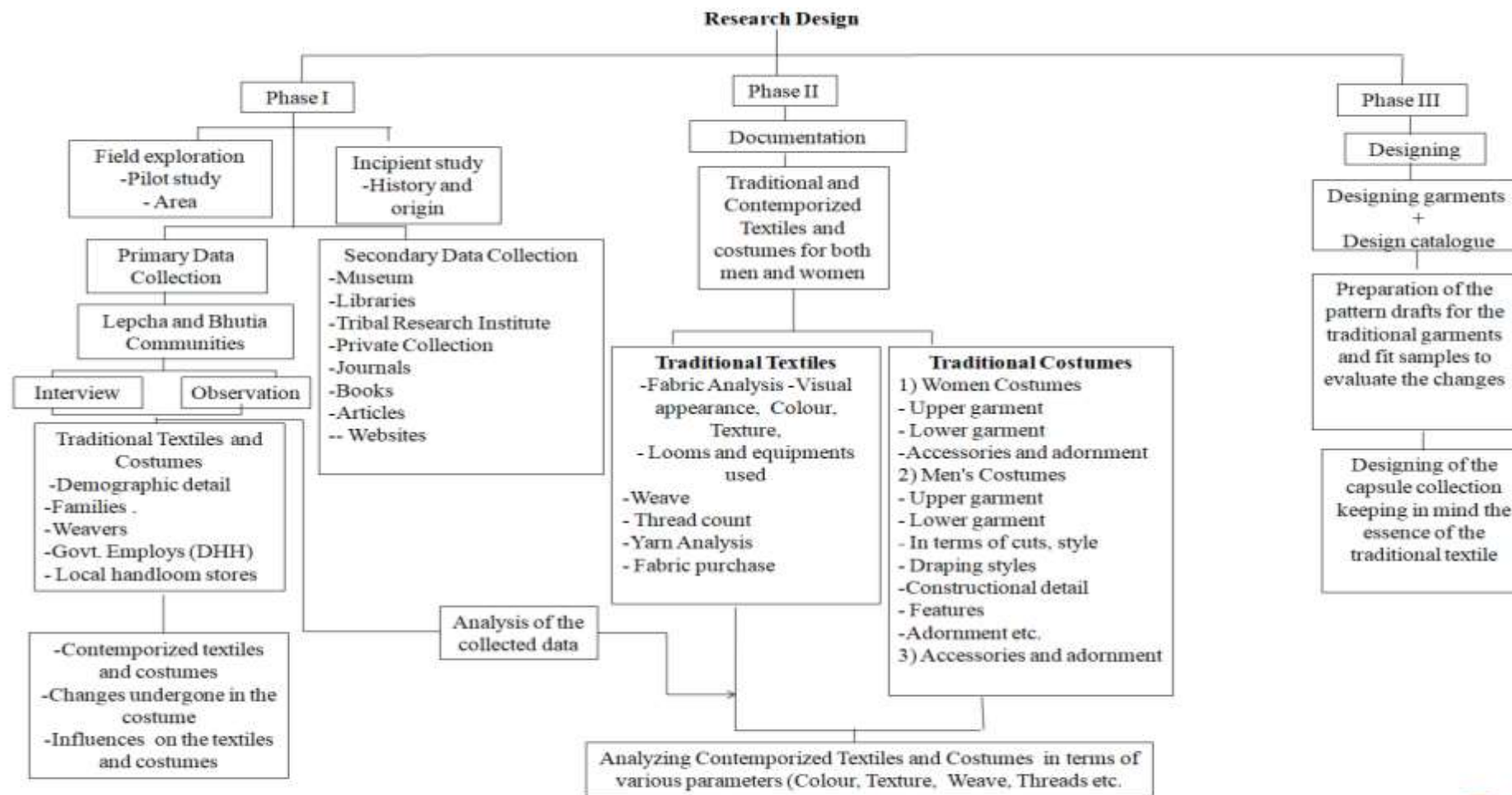


Figure 3.2 Research Design

3.4 Documentation of traditional textiles and costumes of Lepchas and Bhutias, design innovation & analysis of market acceptability done under three phases

PHASE I

3.4.1 Field exploration and data collection

Field exploration played a crucial role in the research pilot work by providing firsthand information. Primary data was collected directly from the field, which offered more accurate and relevant insights for the study. This step aided in validating the research design by identifying potential challenges, opportunities, and necessary adjustments in the methodology. Through field exploration, the researcher identified factors influencing the traditional textiles and costumes of the Lepcha and Bhutia communities, leading to the formulation of hypotheses. This deepened the understanding of the contextual factors, including cultural, social, economic, and environmental aspects, which directly or indirectly impacted the research outcomes. Building rapport with locals in the communities was essential for successful data collection. During this phase, feasibility was assessed in terms of logistics, resource availability, time constraints, and ethical considerations, including obtaining necessary permissions for the research from the Government of Sikkim.

3.4.1.1 Relevant literature review

The study encompasses information on the origin and historical background, raw materials, tools and techniques, designs, colours, motifs, and their symbolic meanings in the traditional textiles and costumes of the Lepcha and Bhutia communities in Sikkim. Data was gathered from various published and unpublished sources from various libraries.

- National Institute of Fashion Technology, New Delhi
- Department of Clothing and Textile, Faculty of Family and Community Sciences, The Maharaja Sayajirao University of Baroda.
- Namgyal Institute of Tibetology, Gangtok, Sikkim.
- Arch College of Design, Jaipur.
- Indira Gandhi National Centre for the Arts, New Delhi

- National Institute of Design, NID, Ahmadabad.
- Library of National Museum, New Delhi.
- Library of Craft Museum.

Libraries of various museum collections were also visited. The data collected from the literature review was further corroborated by visiting several museums viz:

- National Museum (New Delhi), Crafts Museums (New Delhi),
- Directorate of Handloom and Handicrafts, Gangtok (Sikkim),
- Lepcha Museum, Namprikdam Sikkim,
- High Court of Sikkim Museum,
- Ganju Lama War Museum, Sherathang, Nathu La
- Lepcha Museum, Darjeeling.

Furthermore, data was collected from a virtual museum viz:

- University of Alberta Museums, University of Alberta: Virtual Exhibition - Dragons on the Tibetan Plateau,
- Tibet Museum
- Victoria & Albert Museum (V&A) London

Further, the data was collected from various old art collectors, and designers.

3.4.1.2 Selection of locale

The methodical approach to selecting locales and respondents for gathering primary data on the traditional textiles and costumes of the Lepcha and Bhutia communities in Sikkim involved a detailed process of study area delineation. This entailed a comprehensive assessment of factors like geographical accessibility, cultural importance, community demographics, and participant availability. **(Table 3.1)** By refining the study locales, the researcher was able to concentrate her efforts more efficiently, ensuring thorough coverage and insightful exploration of the textile heritage within these Sikkimese communities.

Refer to **Plate 3.2** for the locals visited.

Through literature reviews and close interactions with the locals, it became evident where the members of these communities resided, as well as the locations of handloom weavers and other artisans involved in the arts and crafts of Sikkim. To identify the weavers and experts in these crafts, the Directorate of Handloom and Handicrafts centres were explored zone-wise, and contacts of weavers were collected from there.

Additionally, experts from the Culture Department in Gangtok, the Archive section in Gangtok, as well as designers like Sonam Tashi Gyaltzen, Karma Sonam in Gangtok, Alyen Foning in Darjeeling, Tsering Dolma and Tshering Lhamu Lepcha from Gangtok, also assisted in locating the weavers and individuals from the community, as well as in the exploration of the state.

For primary data collection, surveys and interviews were conducted in all four zones of Sikkim and West Bengal (In person and online mode) as mentioned in the table below:

S.No	Districts	Places
1	East Sikkim	Gangtok, Deorali, Bajara, Burtuk,
2	North Sikkim	Lachung, Lingthem, Lingdong, Sangkalang, Mangan, Singik, Noom
3	West Sikkim	Gyalshing, Pelling and Yuksom
4	South Sikkim	Namchi, Ravangla, Jorethang
5.	West Bengal	Kalimpong

Table 3.1 Locale of the study

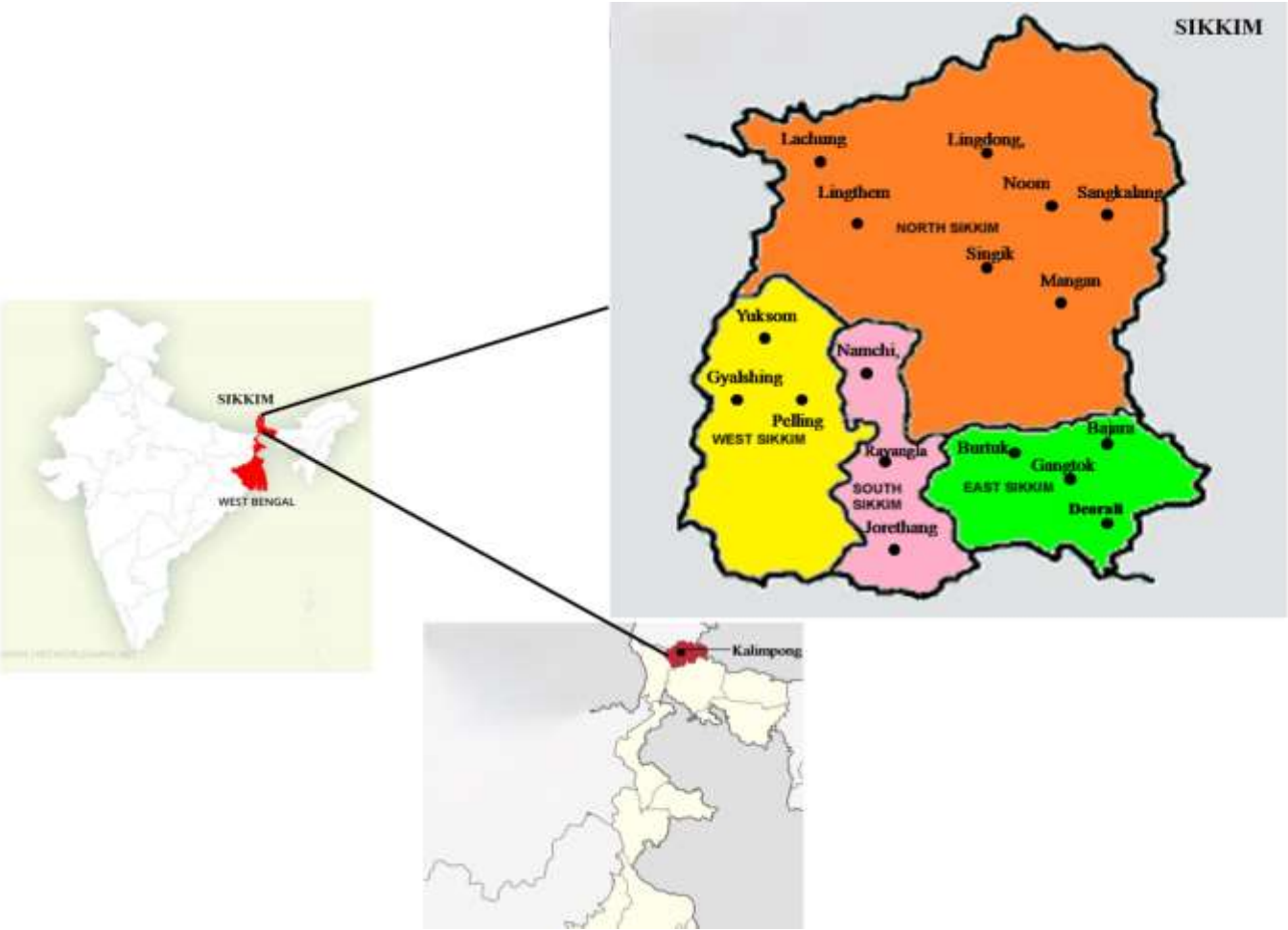


Plate 3.2 Map of Sikkim
Source: <https://www.veethi.com/places/sikkim-state-23.htm>

3.4.1.3 Selection of sample

An extensive field survey was conducted, involving interviews, and attendance at local weddings, occasions, and festivals. Data was collected from various families within the two communities. The study's sample was divided into two parts based on two categories:

One interview schedule was developed for community members across different generations, while the other was tailored for experts, including artisans, designers, tailors, and government officials. Before the field visit, the interview schedule was designed and validated by four experts.

Multistage sampling was done to collect data

I Stage: In the first stage sample was divided according to the communities and occupation.

II Stage: The locale of the communities was identified.

III Stage: Interviews were conducted with the families along with the professionals.

A total of 120 individuals from the selected two communities of three generations (2 respondents from each) + 40 Professionals were taken.

A total sample size of 160 respondents was taken for the study to collect first-hand data for the study. (Figure 3.3)

The sample was further divided into the following categories:

- Families (Three generations were taken for the data collection) These families were from Urban and rural localities of the selected local.

Generation I	Above 50 years
Generation II	35-50 years
Generation III	20-35 years

- Handloom weavers
- Tailors and Designers
- Govt. employees
- Local handloom owners.

Here snowball sampling techniques were adopted for sample selection. For data collection interview schedule, group discussion, observation, photographs and audio-visual tools were used.

List of places visited and a few important people who contributed to the research.

- Mickma Tshering *Lepcha*- Artist of All India Radio, Gangtok for both *Lepcha* music and instruments.
- Ms. Sujata Bhujel, master weaver at the Directorate of Handloom and Handicraft
- Mr. Jorden *Lepcha*, is one of the master craftsman of bamboo hat weaving.
- Ms. Ongkit *Lepcha* , one of the master weavers for handloom weaving from Ms. Amu Sakchum NGO
- Ms. Binita Thapa, Director, DHH, Gangtok.
- Dr. Bharat Pradhan, Forest Department, Gangtok.
- Mr. Bhim Pradhan, Costume section, songs and drama unit.
- Mr. Prahlad Rai Costume section. Mr. L.N Sharma Archive section, Sikkim State Museum, Gangtok
- Dr. Biswajyoti Das Gupta, Deputy Director, Census office, Tadong.
- Visited ECOSS, Eco-Tourism Society of Sikkim, NGO, for future tie-ups and collaborations.
- Dr. Biswajyoti Das Gupta, Deputy Director, Census office, Tadong.
- Karma Sonam Bhutia, Textile Designer at ‘Ecostream’ and Mr. Sonam Gyaltzen CEO of LA design, office at Gangtok
- Dr. Bharat Pradhan, Scientific Associate, Sikkim State Biodiversity Board, Forest, Environment & Wildlife Management Department, Government of Sikkim.
- Mrs. Bishnu Kumari, Department of Forest Wildlife and Environment Management, Government of Sikkim.
- Mr. Rajendar Prasad Gurung , CEO of ECOSS, Gangtok, Sikkim.

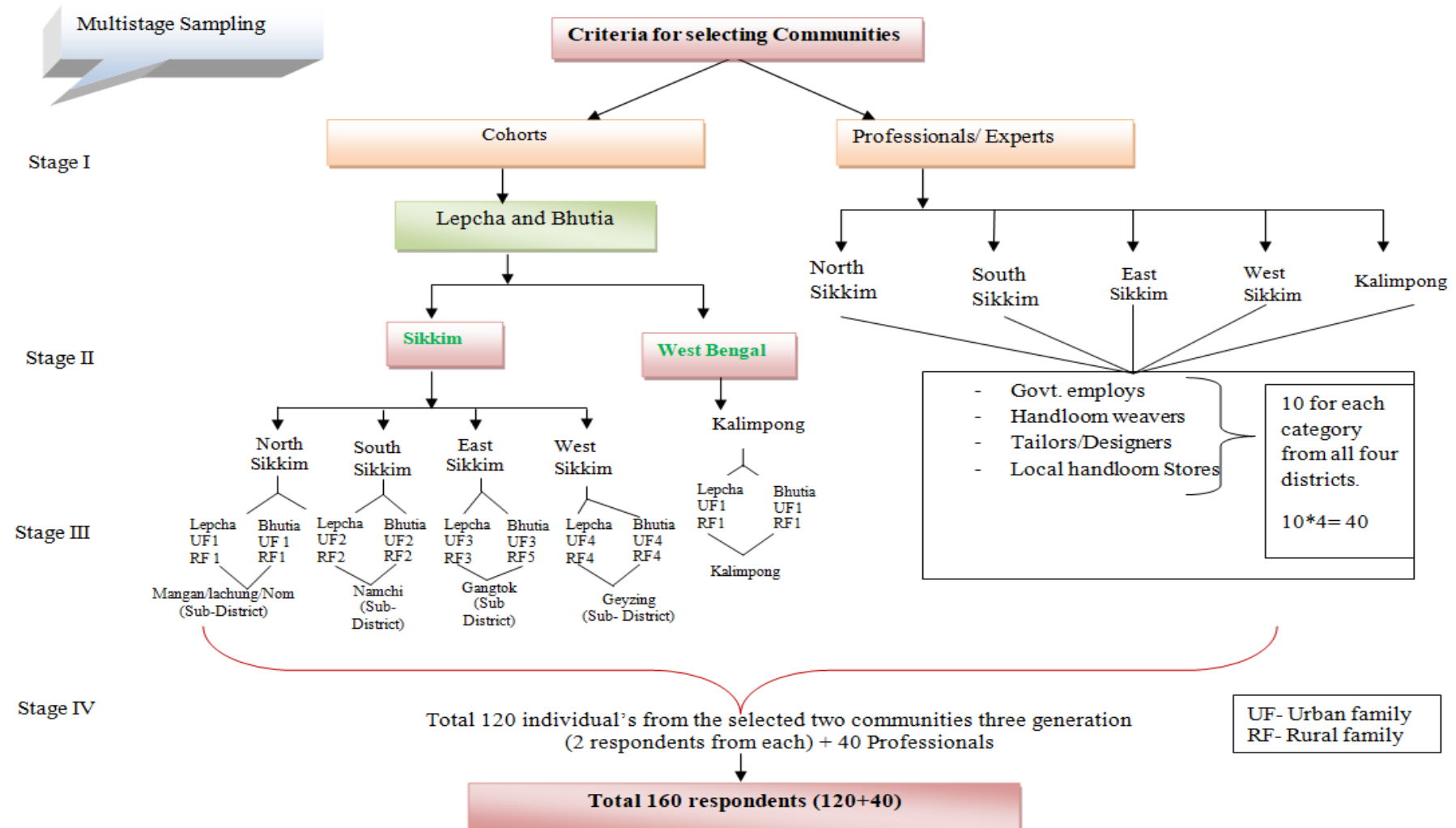


Figure: 3.3 Sample size

3.4.1.4 Method, tools & technique of data collection

For this study, the observation technique and interview method were used to collect primary data. The costumes preserved at various institutions were analyzed using the observation technique. Given the descriptive and qualitative nature of the study, interviews with individuals from museums, personal collections, and other relevant sources were conducted using a semi-structured interview schedule, supplemented by field notes, photographs, and portraits.

Tools for data collection

S.No	Selected Tool	Description	Rational
1	Interview	An interview schedule is a predefined set of questions designed to gather data on a particular area of study in a structured manner.	The researcher opted for an interview schedule given the qualitative and descriptive nature of the data required. This schedule consisted of various open and closed-ended questions tailored to gather the necessary information. Therefore, the researcher personally met with all the respondents to ensure a comprehensive understanding of the costumes and culture within the Lepcha and Bhutia communities.

2	Observation	The observation method of data collection involves systematically watching and recording behaviours, events, or processes in their natural settings.	The observation was instrumental in understanding the spontaneous and natural behaviours and responses of the weavers. It often revealed differences between the information provided by the artisans and the actual observations, highlighting its importance in discerning accurate information from the respondents. Additionally, observation deepened the understanding of Lepcha and Bhutia culture, their textiles, costumes, and the various factors influencing changes in their traditional attire.
3	Photography	The technique serves as a potent means of capturing visual data in a static manner, providing a robust foundation for subsequent analysis and interpretation.	Photography, as a data collection method, facilitated the precise and detailed capture of visual information. It served as a valuable tool for documenting objects, events, and behaviors, aiding in the accurate portrayal of various phenomena under study. Additionally, photography provided a permanent and accessible source of data for analysis and interpretation. By capturing important visual content from the Lepcha and Bhutia cultures, it enhanced the depth and breadth of the research findings, contributing to a more comprehensive understanding of the subject matter and aiding in documentation and content validation.

4	Videography	<p>Effective tool in recording and validating the process and data important for the study. Videography in research provides a dynamic means for capturing live events and interactions, offering valuable visual content for analysis. It preserves both verbal and non-verbal cues, aiding in comprehensive understanding.</p> <p>Furthermore, it enhances transparency and credibility in research through transparent documentation and dissemination.</p>	<p>Videography proved essential for capturing detailed production processes that photography couldn't adequately represent. It facilitated a deeper understanding of rituals, traditions, and ethnographic nuances.</p>
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3.4.1.5 Tool validation and pre-testing

To validate the appropriateness of the formulated interview schedule, **(Plate 3.3)**, It was given to experts for validation. The questions were reviewed by four design professionals in the field to ensure their validity. Subsequent modifications were made based on the feedback provided by these experts.

To identify and address any unexpected issues in the administration of the interview schedule, a pre-testing phase was conducted on a non-sample group from each tribe. Following the pre-testing, several adjustments were deemed necessary to enhance the validity of the schedule.

Keeping the objectives in mind five interview schedules (Annexures I, II, III, IV, V) with self-structured questionnaires were constructed. The schedule contained open-ended questions with one or two close-ended questions.

The interview schedule focused on the following major areas:

- Demographic details of the locals, profiles of crafts and artisans, procurement patterns, traditional textiles, and the occupation of the people, as well as trading patterns within the state, were examined. Additionally, information on tailors, designers, changes in textiles and costumes, and traditional practices was collected.
- The research also delved into the manufacturing process of traditional fabrics, focusing on processes, raw materials, dyeing, warping, loom weaving, and the components of the loom.
- Furthermore, traditional costumes, accessories, and other adornments were documented, along with insights into cross-border trade and influences.



Plate 3.3 Researcher conducting interview with the families and weavers

To gather the data, the researcher personally visited all selected villages and towns, attended various fairs, festivals, and local weddings. Questions were posed in English, Hindi, and Nepali to ensure clear understanding, with responses subsequently translated

into English. During interviews, the researcher also observed respondents' homes, cultures, and other pertinent practices crucial for the research documentation process.

PHASE II

3.4.2 Exploration of traditional textiles and costumes of Lepcha and Bhutia Communities.

3.4.2.1 Documentation of Traditional Textiles, clothing, Accessories, Adornments and other crafts.

This phase included documentation of Traditional Textiles and Costumes of Lepcha and Bhutia Communities of Sikkim State. Documentation was done keeping in mind the following categories.

- Textiles
- Clothing
- Accessories and adornment
- Other crafts

Documentation was done by observing the old photographs, audio audio-video records and by analyzing the interviews given by various families of the Lepcha and Bhutia community about their traditional textiles, costumes and culture

To study traditional textiles and costumes, the researcher studied the textiles and costumes preserved at the Culture Department of Manan Bhavan, **(Plate 3.4)** Government of Sikkim, Gangtok. A subjective analysis was conducted on the costumes of two communities: Lepcha and Bhutia. Specimens with one or more distinctive features were selected for documentation. The constructional details of the Lepcha and Bhutia garments were examined by interviewing various tailors, pattern master's from local stores, and designer houses in the area.

The study of the constructional styles of Lepcha and Bhutia garments was done in detail. Garments such as trousers, shirts, jackets, aprons, long coats, head gear, and draped fabrics were classified and examined. All the garments were observed and studied for their silhouettes, constructional details, cuts and styles, finishing process and surface embellishment. Further observations were also made in terms of the similarity

of these garments with that of other neighbouring regions. Garment observations were written and patterns were prepared using ¼ scale. These developed patterns were digitized using Illustrator, Procreate and PowerPoint.

Photographs showcasing diverse textile and costume designs were gathered from personal collections, museums, various websites, social media pages and portraits. Subsequently, these visuals were documented to preserve traditional designs. The market survey provided data on the currently prevalent designs.

The researcher visited the study area and stayed in remote villages, especially the small hamlets nestled in the mountains, where accessibility was challenging. This was done to collect data relevant to the study.



Plate 3.4 Researcher studying costumes at Culture Department, Gangtok

For better analysis and understanding garments were studied in depth to understand the cuts and styles of the traditional garments along with the patterns. These garments were studied to understand the buying pattern and cross-border trade within the state and analyse Contemporized Textiles and Costumes in terms of various parameters like colours, motifs, design, style, etc. The data collected during fieldwork was organized into Excel spreadsheets to address the study hypotheses. Responses from 160 individuals were segregated and organized according to the interview schedule questions. The data analysis was conducted, and the findings were presented using pie charts and bar diagrams. To assess the collected data, the Kruskal-Wallis test was

applied. This test compared the median of three groups (generations), with the acceptance or rejection of the null hypotheses determined based on the p-value.

The researcher was keen to understand the reason behind the various changes which came in the textiles and costumes of the Lepcha and Bhutia communities through the Hypotheses set for the study.

Hypothesis I

H₀: There is no significant difference in the changes in textile and costume due to education.

H₁: There is a significant difference in the changes in textile and costume due to education.

Hypothesis II

H₀: Perception of all respondents with respect to the changes in textile and costume was not due to the merger of Sikkim with India.

H₁: Perception of all respondents with respect to the changes in textile and costume was due to the merger of Sikkim with India.

Hypothesis III

H₀: Perception of all respondents with respect to the changes in textile and costume was not due to the influence of mass media.

H₁: Perception of all respondents with respect to the changes in textile and costume was due to the influence of mass media.

Hypothesis IV

H₀: Perception of all respondents with respect to the changes in textile and costume was not due to the influence of the neighboring countries.

H₁: Perception of all respondents with respect to the changes in textile and costume was due to the influence of the neighboring countries.

PHASE III

3.4.3 Categorization of design concepts

The design concept was framed keeping in mind the various aspects of *Lepcha* and *Bhutia* culture and garments were designed for both genders, along with style and inspiration boards. **(Plate 3.4)** Design concept categorization was as follows:

1. Layered Lore- The researcher found inspiration in the cuts and styles of traditional *Lepcha* and *Bhutia* costumes while maintaining their essence. Situated in the Himalayan Mountains, Sikkim features mountainous terrain and a strong connection with nature. Given the colder climate, people prefer loose, cloak-style garments fastened at the neck and waist for warmth. The researcher blended traditional styles with a contemporary outlook, incorporating layered garments and exaggerated sleeves into the winter wear collection. The collections were developed using the best suitable fabrics identified through the market survey.



Plate 3.5 Category 1 Layered Lore’s style board

2. Coloured Narratives- Here the researcher thoroughly explored the vibrant cultural heritage of Sikkim, drawing inspiration from its colourful traditions and unique styling techniques. This exploration aimed to celebrate the diverse and harmonious blend of cultures in the region, capturing the essence of its lively textiles and distinctive clothing styles. In this pursuit, the researcher embarked on creating a luxury resort wear collection, envisioning it as a homage to the vibrant cultural tapestry of Sikkim. Each garment in the collection was meticulously designed to reflect a facet of this colourful heritage, with a focus on preserving and reimagining traditional cuts and styles. The collection served as a testament to the harmonious coexistence of *Lepcha* and *Bhutia*

cultures in Sikkim, showcasing the beauty and diversity of its cultural influences. **(Plate 3.6)**

3. Tribal Analogues - Lepcha and Bhutia communities have long been known for their casual yet finely crafted attire adorned with captivating tribal patterns, each carrying a rich historical and cultural significance. Lepcha weaving, a traditional art form native to Sikkim, has its roots in the ancient practice of using nettle, known as *sisnu*, to create yarn for handloom weaving. This unique technique, referred to locally as *thara*, results in intricately woven fabrics showcasing intricate tribal motifs. Similarly, Bhutia Textiles also boast their distinct patterns and designs. **(Plate 3.7)**

This segment of the research centres on the exploration of tribal patterns prevalent in the traditional clothing of the Lepcha and Bhutia tribes. The researcher aimed to merge these traditional tribal designs with contemporary silhouettes, creating garments that are not only visually striking but also reflect the effortless style synonymous with these communities in Sikkim. The resulting collection features a range of modern silhouettes including shirts, dresses, pants, jackets, and skirts, each incorporating clean lines and geometric patterns inspired by the distinctive attire of the tribes.



Plate 3.6 Category 2 Colour Narrative style board



Plate 3.7 Category 3 Tribal Analogues style board

4. Spiritual Sojourn- The Researcher was inspired by Buddhist culture & the way monks dress. As the community follows Buddhism as their religion, the researcher drew her inspiration for this collection from spirituality more of a Buddhist philosophy and from draped silhouettes.

Design categories in research were selected based on study objectives, scope, and target audience. The researcher has considered thematic relevance, subcategories, and resource availability for effective exploration of the research question.

These designs aimed to seamlessly incorporate the richness of traditional textiles and costumes from the Lepcha and Bhutia communities in Sikkim into contemporary fashion, ensuring widespread acceptance and popularity among the youth. **(Plate 3.8)**

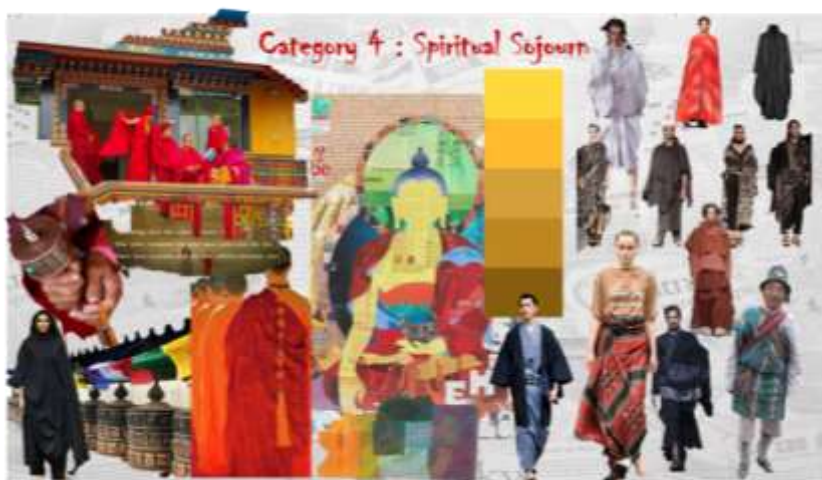


Plate 3.8 Category 4 Spiritual Sojourn style board

3.4.3.1 Design renderings for the collection line

This phase encompasses the entire design development process, commencing with flat sketches of traditional garments to grasp the cuts, styles, and associated changes according to the various listed design categories. A total of 80 designs (**Illustration 3.1**) were sketched out, 40 for men 40 for women and then the best 48 designs were selected based on mutual preference between the researcher and her mentor. These selected 48 designs (12 in each category) were then planned to be presented among 100 design practitioners to gather feedback. (**Figure 3.5**) The designs were developed with a focus on incorporating the cuts and styles of traditional garments from the Lepcha and Bhutia communities.

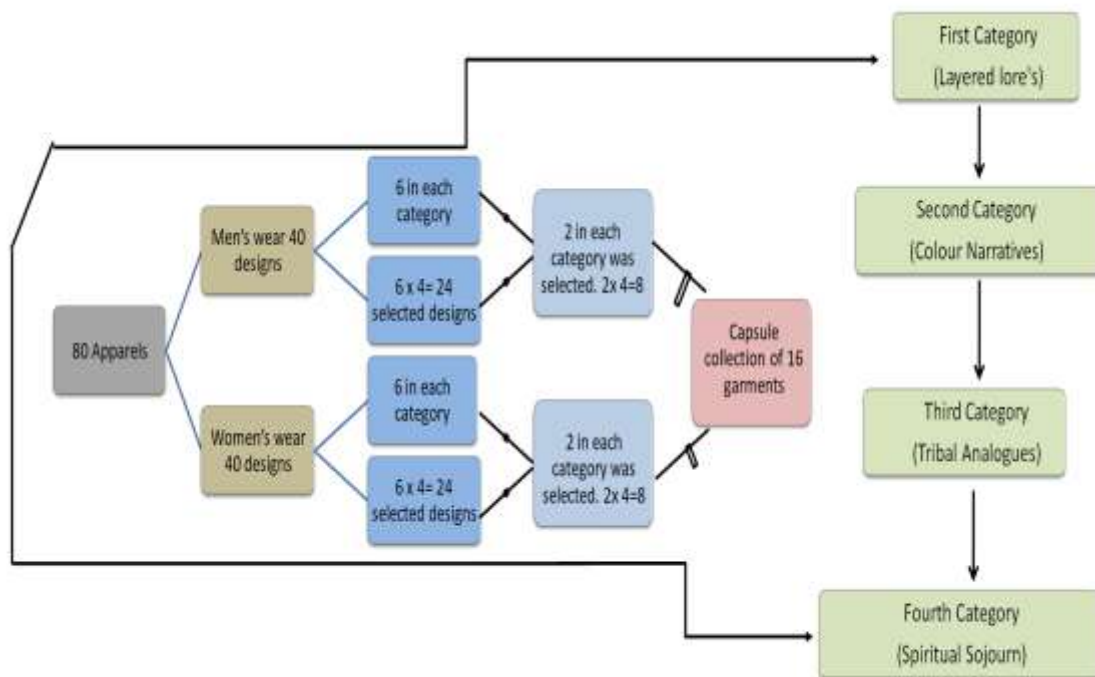


Figure 3.4 Categories for capsule collection

3.4.3.2 Design development

Design development to achieve the study objective began with thorough research and analysis, followed by brainstorming ideas, creating sketches, and prototypes, and

redoing the designs based on feedback. Inspiration was drawn from the cuts, styles, textiles, and motifs of the traditional costumes of the Lepcha and Bhutia communities and a capsule collection of contemporized garments for men and women was designed. **(Plate 3.9)** The prototype and then the final collection were made based on established anthropometric measurements, referencing Armstrong H.J. Size 6 for women and Size 42 for men was chosen as the standard template for the capsule collection, applied uniformly across both male and female garments. The collection was designed and developed under the name “Tradition Reimagined”. Designs were developed keeping in mind the youth (18-29 years), who would choose and popularize modern silhouettes while keeping the traditional ethics intact.



Illustration 3.1 Rough design sketches



Plate 3.9 Cuts and Style inspiration board

3.4.3.3 Market analysis and fabric acquisition

A market survey was conducted to identify the most suitable fabrics and trims for the collection. Sourcing materials from Sikkim proved challenging due to natural calamities affecting the region during the procurement period. **(Plate 3.11)** Additional lining materials were acquired from Delhi. Various fabrics including silk, cotton, handloom *pangdin* fabric, *Lepcha thokro*, Chinese brocade, khadi, and wool were procured. The wool fabric was adorned with a customized dragon *tanga* motif, designed by the researcher specifically for the collection. Machine embroidery work was outsourced to Delhi.



Plate 3.11 Fabric sourcing, Gangtok Market

3.4.3.4 Development of the design opinionnaire and selection of the best 16 designs

A Google form was created and circulated to gather opinions on design preferences within the community. The collected responses were analyzed, leading to the shortlisting of the best 16 designs for construction.

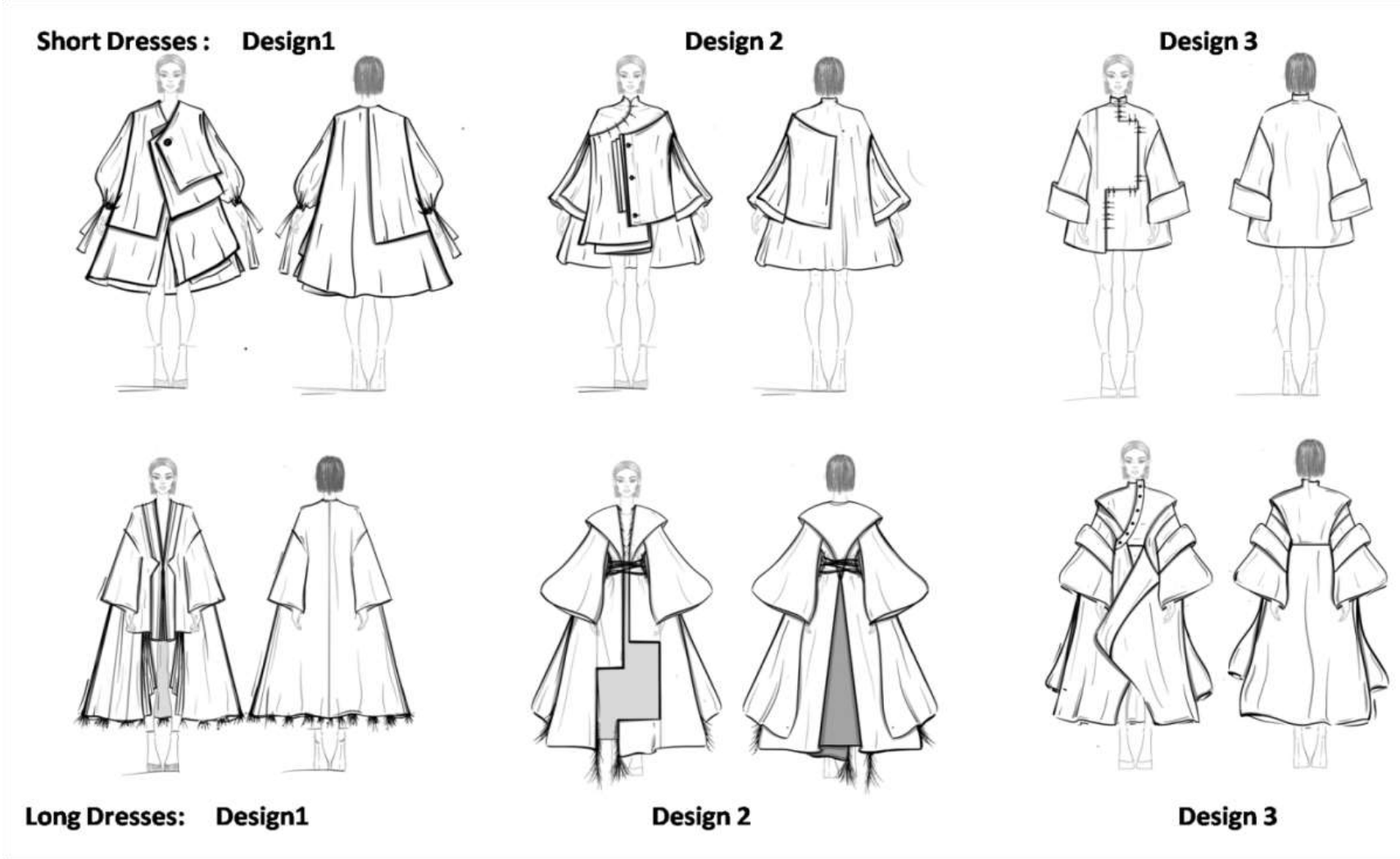


Illustration 3.2 Category 1 (Women's wear)

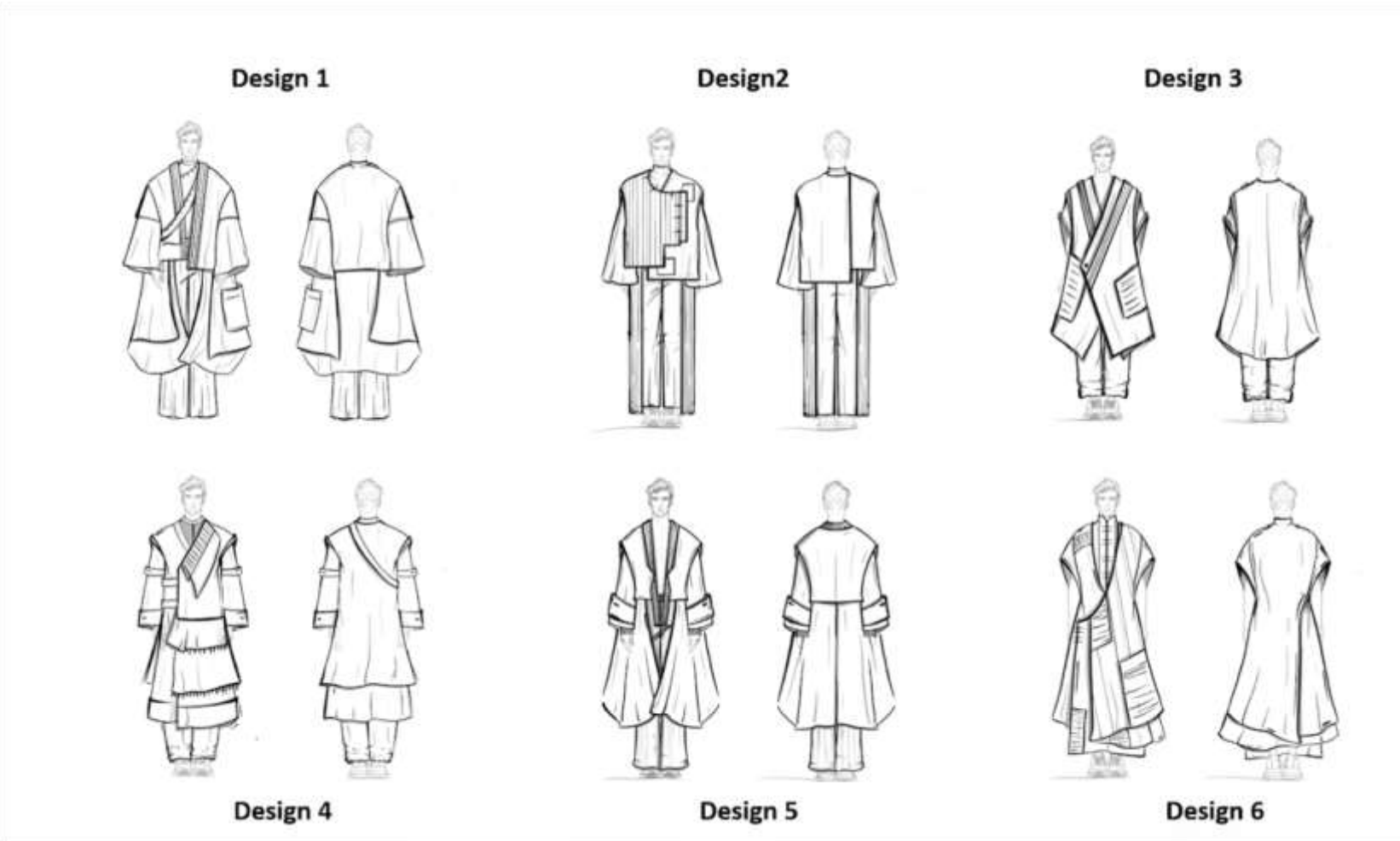


Illustration 3.3 Category 1 (Men's wear)

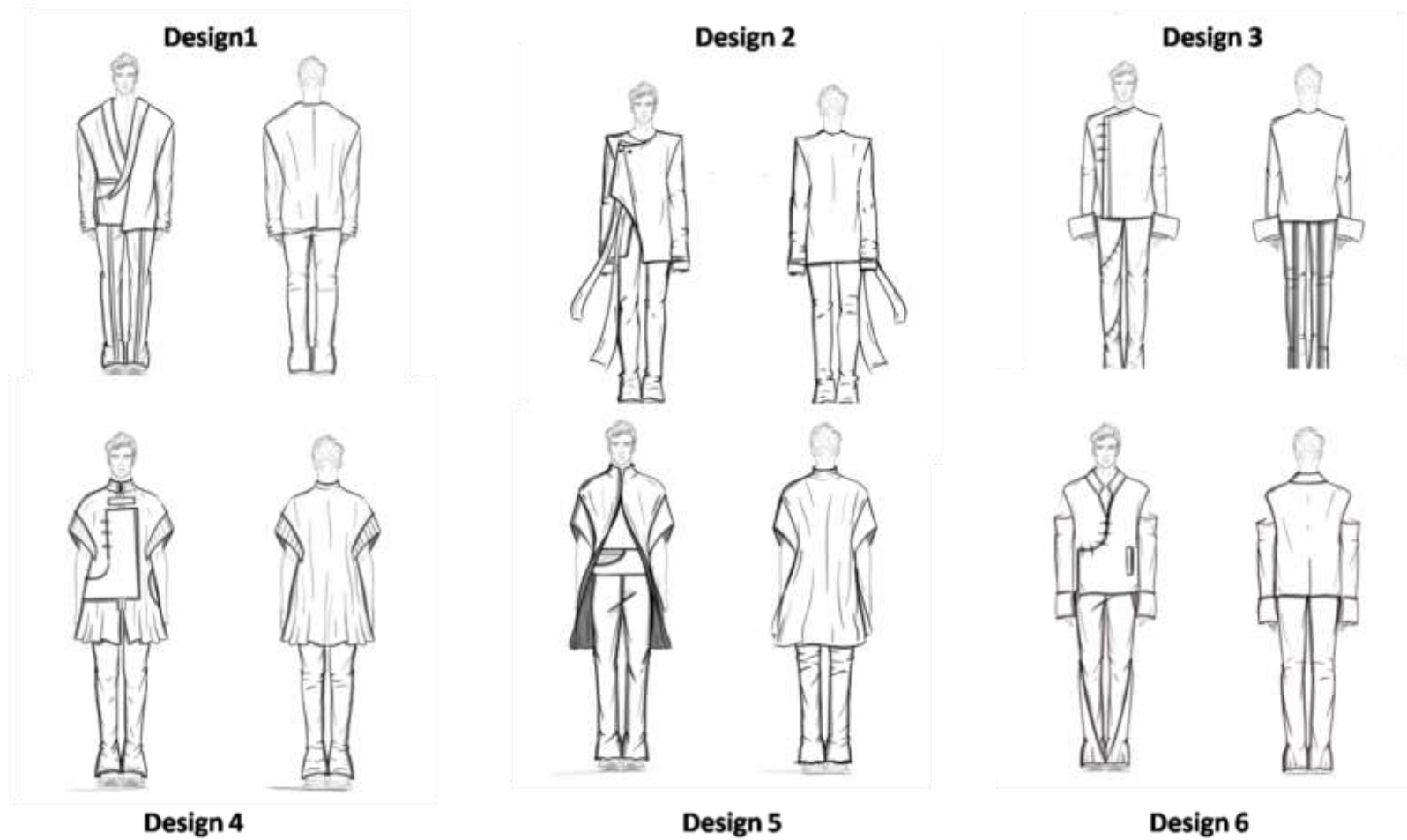


Illustration 3.4 Category 2 (Men's wear)

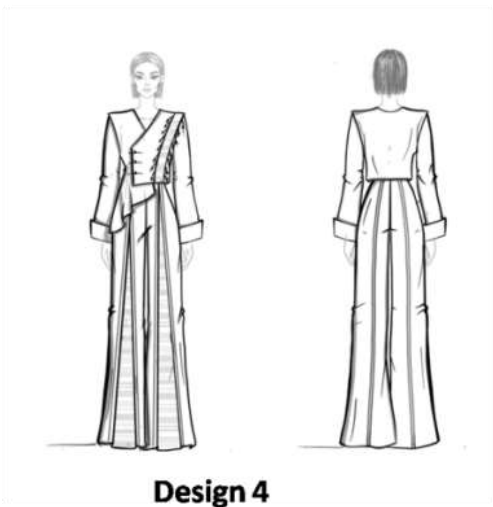


Illustration 3.5 Category 2 (Women's wear)

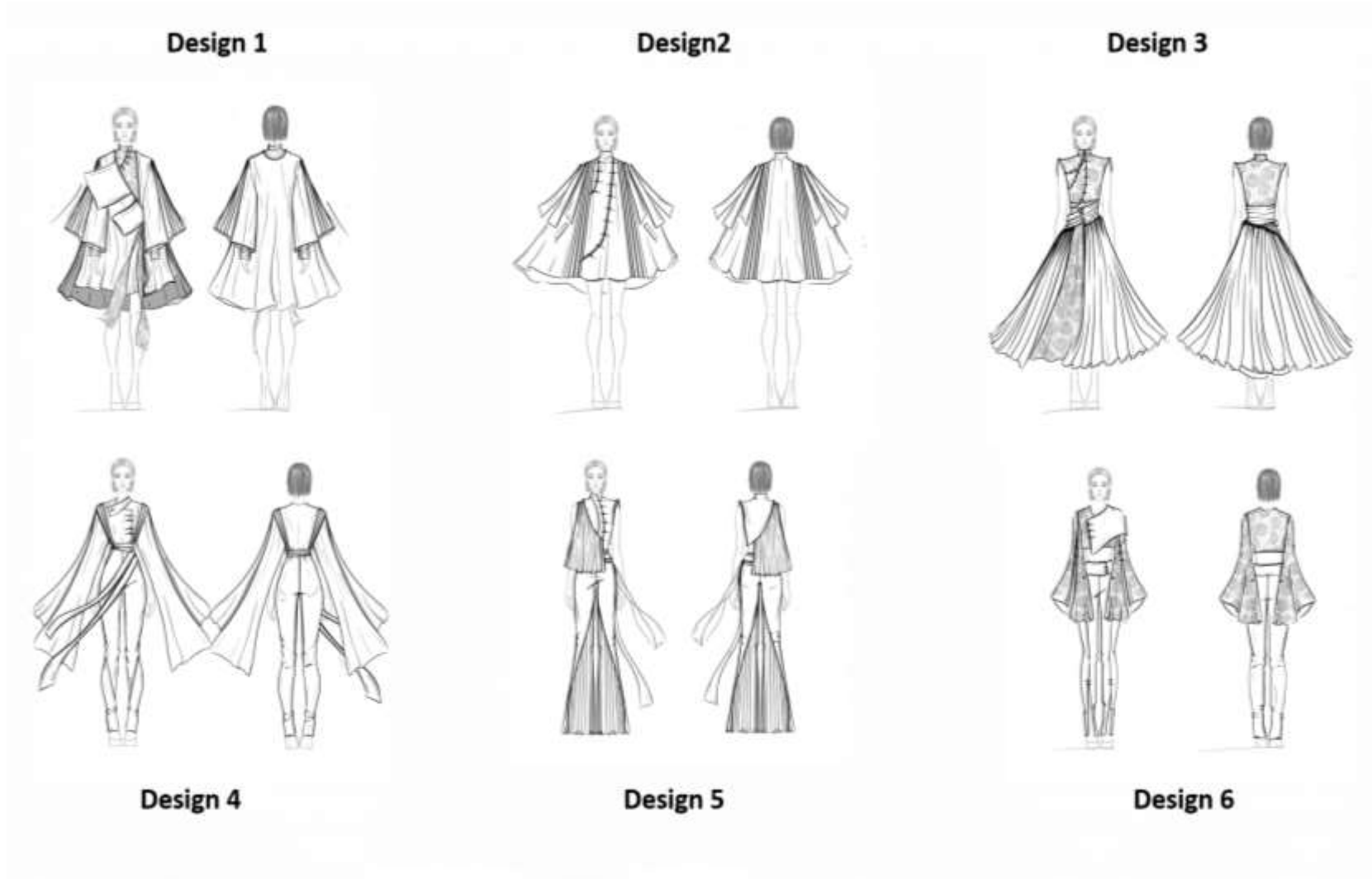


Illustration 3.6 Category 3 (Women's wear)

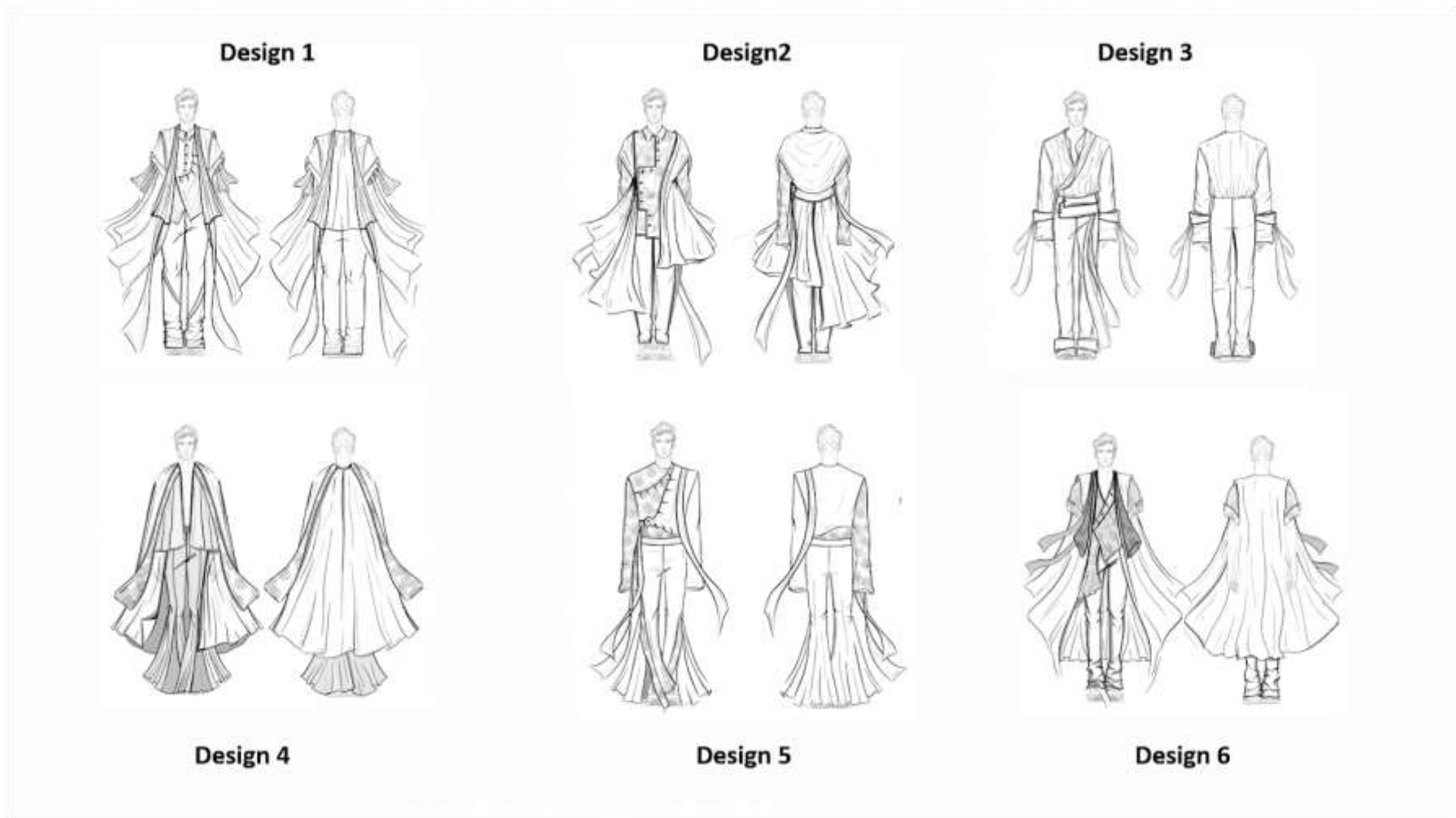


Illustration 3.7 Category 3 (Men's wear)

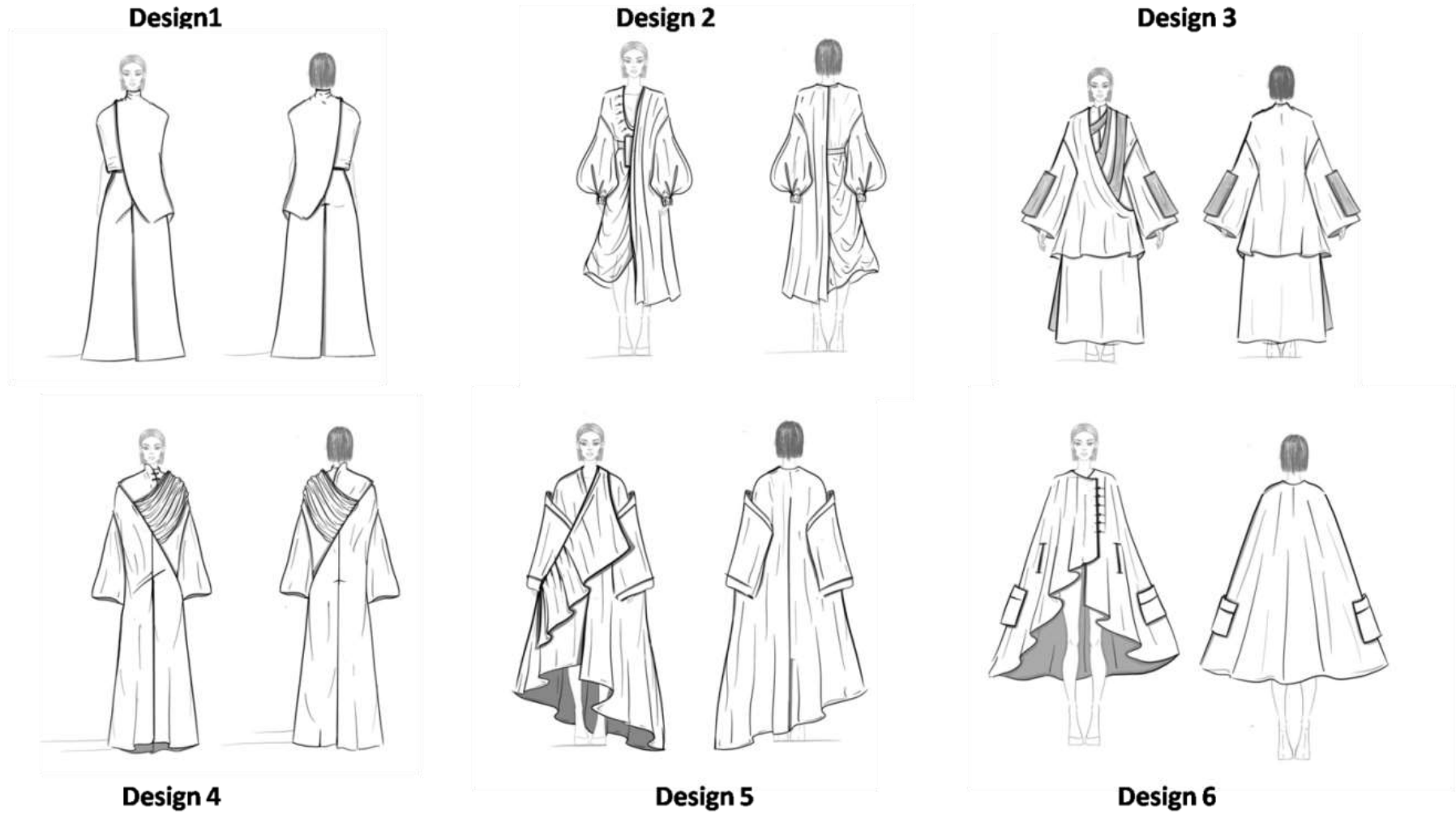


Illustration 3.8 Category 4 (Women's wear)



Illustration 3.9 Category 4 (Men's wear)

The investigator presented all 48 designed garments in digital format to design experts from various fields, including academics, and designers. They were asked to provide their opinions on the selection of designs and their relevance to traditional silhouettes. Each sketched design was categorized into four groups, encompassing designs for both genders. A unique code was assigned to each design for identification purposes. Experts were requested to rank the designs on a scale from 1 to 6 (1 being highly appealing and 6 being the least): Rank 1- Highly Appealing, Rank 2- Appealing, Rank 3- Somewhat Appealing, Rank 4- Average, Rank 5- Not Appealing, and Rank 6- Poor. Responses were collected and suggestions were also sought. Based on the highest scores, four designs from each category were chosen for further development. Consequently, a total of 16 designs were selected for the creation of the capsule collection line.

3.4.3.5 Application of statistical method for data analysis

In this phase of the study, evaluation was centred on designs influenced by the traditional garments and silhouettes of two communities in Sikkim. To fulfill the objective, a tool (a self-structured questionnaire) was developed, taking into account all pertinent variables. The questionnaire comprised both open-ended and closed-ended statements. A Likert scale was utilized, encompassing a range of two, three, five, or six points based on the nature of the questions, prompting respondents to express their opinions. (Table 3.2, Table 3.3)

The questionnaire encompassed inquiries concerning the acceptability of designs in both the national and international markets, their aesthetic appeal, the degree to which designs related to traditional silhouettes, and overall ranking for the best four designs in each category. The scales were developed as follows:

Rank	Highly appealing	Appealing	Somewhat appealing	Average	Not appealing	Poor
Score	1	2	3	4	5	6

Table 3.2 Six point likert scale

Rank	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
Score	5	4	3	2	1

Table 3.3 Five- point likert scale

The questionnaire data was tabulated for comparison. Percentages were used to create pie charts and bar graphs, simplifying analysis across respondent categories. This method efficiently illustrated differences and allowed for the interpretation of the findings.

3.4.3.6 Design construction and preference

After the analysis of the opinionnaire, the final garments were designed with a focus on traditional cuts and designs. A total of 16 outfits were developed, with four from each category. Additionally, a capsule collection was created, with a design ethos that was androgynous. This collection aimed to blend elements from both masculine and feminine styles, reflecting a contemporary approach to fashion that transcends traditional gender norms. The researcher worked closely with the tailors for the construction of the garments and making sure that the traditional cuts and styles were incorporated well in newly developed designs. **(Plate 3.10)**



Plate 3.10 Development of designs

These designed garments were then showcased through a ramp show at the **Northeast festival in New Delhi**, an event organized by the Ministry of Tourism (**Plate 3.13**). The primary objective of presenting the developed capsule collection in this fashion show was to introduce Sikkim's traditions to a broader audience. Through this platform, preferences in design were collected.

Subsequently, the same collection was also presented at the Faculty of Family and Community Sciences, The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, to gather design preferences from a different demographic. (**Plate 3.14**) To collect these preferences, a Google Form was developed and linked through a QR code, (**Plate 3.12**) which was then circulated among respondents. A total of 100 responses were collected. Respondents were asked to rank the best designs based on various criteria, including overall aesthetic appeal, colour combinations, styles, market acceptability, and contemporary fashion trends.

Design Preference



"Tradition Reimagined: A Journey through
Lepcha and Bhutia Culture"

Researcher: Garvita Sharma

Guide: Prof. Anjali Karolia

Department of Clothing and Textiles

Faculty of Family and Community Sciences

The Maharaja Sayajirao University of Baroda, Vadodara

Contact: 8238929357

Email: garvita201989@gmail.com

Plate 3.12 QR code for design preference



Plate 3.13 Researcher at Northeast Festival, New Delhi



Plate 3.14 Design preference at Faculty of Family and Community Sciences

3.4.3.6 a. Statistical method used for data analysis.

In this phase, preferences for design collections inspired by traditional Sikkimese garments were evaluated. A self-structured questionnaire was used, where respondents rated designs based on factors such as market acceptability, aesthetic appeal, adherence to tradition, and overall ranking. The questionnaire data was organized in Excel for comparative analysis. Percentages were used to create pie charts and bar graphs, allowing for easy comparison among different respondents and their choices. Bar graphs efficiently represented nominal comparisons, part-to-whole relationships, ratings, rankings, and response distributions within a limited space. Interpretations were then drawn based on this analysis.

3.5 Development of Design catalogue

The development of the design catalogue marked the final phase of the research. This involved compiling and organizing the selected designs into a cohesive presentation format. The catalogue was made to showcase the culmination of the research journey, featuring the finalized garments that were meticulously crafted based on traditional inspirations and expert opinions from the Lepcha and Bhutia communities of Sikkim State.

Each design was carefully sketched, constructed and then photographed, accompanied by detailed descriptions highlighting its unique features, materials used, and cultural significance. The layout of the catalogue was strategically planned to ensure visual coherence and ease of navigation for the audience. Additionally, supplementary information such as the research objective and purpose, background on Sikkim's traditions, and insights gained from the study were included to provide context and enrich the reader's understanding.

This design catalogue will serve as a tangible representation of the research outcomes, by giving valuable insights into the fusion of tradition and contemporary fashion. It was developed to provide a platform to disseminate the findings to a wider audience, fostering appreciation for cultural heritage and innovation in design. This also will serve as a quick reference guide for students, researchers and design enthusiasts thereby increasing awareness about the Sikkim State and its textile and costumes.

As a part of sensitizing other cultures and raising awareness about the traditional textiles and costumes of the Lepcha and Bhutia community of Sikkim. The researcher participated in the [@santati_then_now_next](#). Textiles exhibition representing 75 traditional Indian textiles at National Museum, New Delhi. The researcher developed an art piece by the name " Bodhi Sutra". The object was woven on a loin loom with Indigenous natural fibre locally known as *sisnu* or *sorhing* (Nettle) by Sujata Bhujel and hand-painted *thangka* by Gyaltzen Zimba in Sikkim. "Bodhi Sutra" was inspired by Buddhism and the unique Buddhist culture of Sikkim. The art piece was an amalgamation of rich facets and teachings of Buddha through various symbols like Dharma Chakra, Lotus and Unalome along with the free-flowing river Teesta river from the sacred land of Buddha- Sikkim.

The heart of the painting speaks out a strong thought in Lepcha script which means " Faith and Prayer both are invisible, but they make impossible things happen". This artwork was enthused by one of the most recited poems in the Buddhist tradition "*tsok lu*" (song of feast) written by Rigdzin Jigme Lingpa. This provided a platform to spread Sikkim's culture and artisans to gain recognition and appreciation for the crafts and the communities.

Artwork Title: Bodhi Sutra (**Plate 3.19**)

Product Category: Wall Panel

Material(s) used : (1)Natural fiber-Nettle (Sisnu), Wool (2)Cotton Canvas (3)Natural Dye, (4) Mineral Colours (5) Gold Dust

The technique (s) used :(1)Yarn Dyeing (2) Loin Loom Weaving (3) Hand Painting (**Plate 3.16, Plate 3.17.Plate 3.18**)

Designed by: Ms. Garvita Sharma (Phd. Scholar) and Prof. (Dr.) Anjali Karolia (Mentor)

Created by:Mr. Gyaltzen Zimba (Thangka Artist) and Ms. Sujata Bhujel (weaver) (**Plate 3.21**)

Place of making: Gangtok, Sikkim, India

Year/month of making: 6months +Ideation



Plate 3.15 Sutr Santi Participation



Plate: 3.16 Artwork process chart



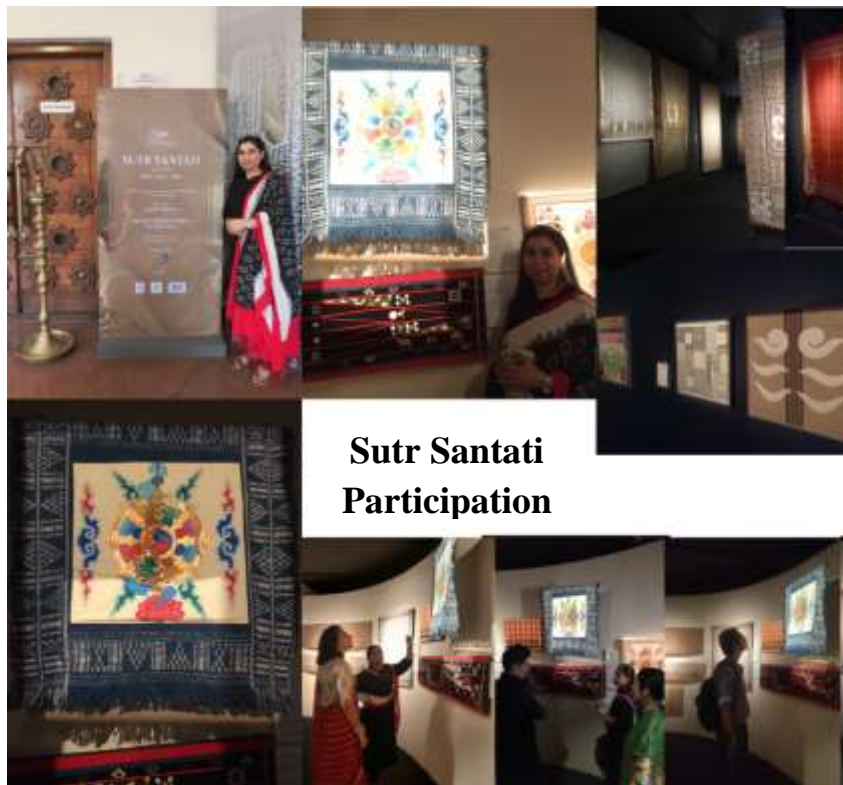
Plate 3.17 Weaving Process for Art work



Plate 3.18 Thangka painting process for Art work



Plate 3.19 Developed Art work “Bodhi Sutra”



**Sutr Santati
Participation**

Plate 3.20 Researcher along with the displayed artwork at National Museum, Delhi

Artisan Team:
Mr. Gyaltzen Zimba (Thangka Artist)
Ms. Sujata Bhujel (weaver)

Additional Support:
Mr. Yasin Bhai (Dyer)
Mr. Vipin Singh (Yarn Procurement)



Plate 3.21 Artisans involved in the making of the artwork.