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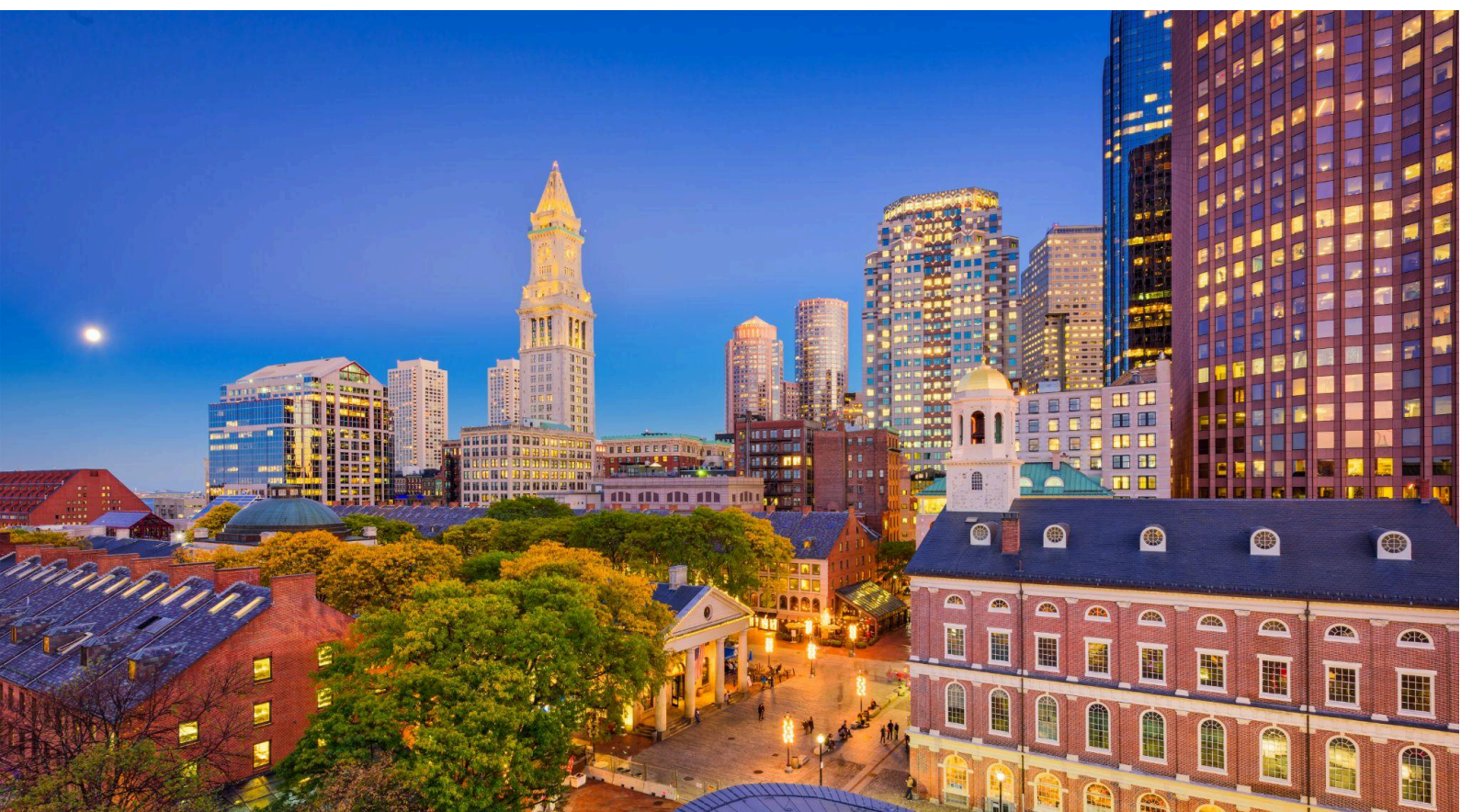
Preface

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JH University
USA

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Malaysia M.Ed (Curr. & Inst.) University of
Houston, US

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Ontario Institute for Studies in Education

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Germany Honorary President of

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Mancha, Spain

Dr. Nicoleta Auffahrt

Ph.d in Candidate (Social Development), MA.

in Social Development, BS. in

Sociology and Anthropology,

Naresuan University, Thailan

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Roots of Resilience: Indigenous Leadership Styles Among Tribal Communities of Purulia

Ms. Sonali Hota[δ], Dr.Laxmiram Gope[β]

ABSTRACT

This study examines the leadership styles embedded in the tribal indigenous knowledge systems of the tribes in Purulia, India. Focusing on their roles in community development, resource management, cultural preservation, conflict resolution, and social governance, the research examines how these women embody unique leadership principles rooted in their traditions. Adopting a multidisciplinary approach, the study investigates the interconnectedness of cultural values, decision-making processes, and collective responsibility within these tribes. The findings highlight how these leadership styles contribute to sustainable development, gender equity, and resilience in the face of external pressures, offering valuable insights for modern governance systems. This study underscores the importance of integrating indigenous perspectives into broader discussions on leadership and development.

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Author(s): **δ –** Assistant Professor Gangadhar Meher University, Sambalpur, Odisha
β – Assistant Professor, Department of Education, Sidho-Kanho-Birsha University, Purulia, West Bengal.

I. INTRODUCTION

The tribal communities of Purulia hold deep indigeneity and through their indigenous practices, they sustained in this challenging era. They collected their livelihood through their rich indigenous practices and knowledge systems, which hold rich cultural legacy. It advances within the context of cultural, social, and environmental factors that shape communities worldwide. Among tribal societies, leadership is deeply rooted in indigenous knowledge systems, which serve as the cornerstone of social organization, governance, and decision-making. Indigenous tribal communities developed a unique social and administrative capacity for running their society. During the field

visit, it was observed that most tribal communities manage their lives through traditional decision-making processes. Therefore, through this study, researchers focused on the leadership styles observed within the tribal communities of Purulia., It explores how indigenous knowledge influences leadership practices and fosters community cohesion. Tribal societies in Purulia are characterized by their unique cultural identities, traditional wisdom, and a deep connection with nature. They possess an extensive repository of knowledge passed down through generations of oral traditions, rituals, and practices. Leadership in such societies is not merely about authority or hierarchy but involves consensus-building, collaboration, and stewardship of natural and cultural resources. Unlike conventional Western leadership paradigms prioritizing individualism and authority, tribal leadership emphasizes collective well-being, reciprocity, and inclusiveness.

The district of Purulia is home to several prominent tribal groups, including the Santhals, Mundas, Oraons, and Bhumijs. Each of these tribes has its distinct leadership structures, yet there are shared principles that govern their practices. For example, the role of tribal leaders such as the "Manjhi" among the Santhals or the "Pahan" as spiritual custodians reflects a leadership style that combines administrative, social, and spiritual responsibilities. These roles demonstrate how leadership functions as a holistic process, rooted in community welfare and cultural continuity. This study analyzes how leadership styles in Purulia's tribal communities reflect indigenous knowledge and values. By understanding these traditional leadership systems, we can gain insights into alternative models of leadership that are sustainable, inclusive, and deeply connected to cultural identity. In an era marked by globalization and rapid socio-economic change, indigenous leadership practices offer valuable lessons for contemporary leadership models that aim to strike a balance between progress and sustainability, as well as community integrity. This research addresses key questions: How is leadership defined and practiced within these tribes? What role does indigenous knowledge play in shaping leadership styles? How do tribal leaders navigate challenges posed by modernity while preserving traditional values? Through a qualitative exploration of these questions, this study contributes to the broader discourse on leadership, cultural knowledge, and

indigenous ways of knowing in relation to leadership skills.

Thus, researchers can express that the leadership styles within the tribal communities of Purulia offer a nuanced perspective on governance and community building. By studying these leadership practices, researchers document invaluable indigenous knowledge and highlight its relevance in fostering inclusive and sustainable leadership models in the contemporary world. This introduction sets the stage for a deeper exploration of leadership as a reflection of cultural values and collective wisdom in tribal societies.

1.2 Needs and Significance of the Study

The study, which explores leadership systems grounded in indigenous knowledge, provides a distinctive perspective on leadership from the tribal communities' viewpoint. The need for this research stems from the growing recognition that indigenous communities continue to be underrepresented in academic and leadership discourses, despite their rich cultural heritage and sustainable ways of living. The leadership styles practiced within these communities reflect profound wisdom, collective decision-making, and a harmonious relationship with their environment. However, these systems are often overlooked or deemed "non-modern," leading to their marginalization in the contemporary narrative of leadership studies. Thus, this study becomes crucial for preserving, documenting, and validating these indigenous practices while highlighting their relevance and significance in today's world.

The tribes of Purulia, such as the Santhals, Bhumijs, Oraons, and others, possess unique leadership frameworks shaped by their cultural traditions, social structures, and environmental connections. Their leadership styles are not driven by power or hierarchy but by communal responsibility, trust, and consensus. In an era when leadership in mainstream contexts is frequently criticized for being overly individualistic or exploitative, the tribal leadership of Purulia presents a sustainable and inclusive alternative. This study addresses the need to examine indigenous systems, providing fresh insights into leadership models that prioritize the collective over the individual, emphasize resource preservation, and ensure harmonious coexistence within communities.

Furthermore, Purulia, a region rich in tribal diversity, is an ideal focal point for this exploration. The indigenous leadership systems in this region reflect centuries of accumulated wisdom that has allowed these communities to adapt, survive, and thrive amidst challenges. As globalization and modernization continue to impact these tribal societies, there is an urgent need to document and understand their leadership patterns before they are lost or diluted. This study ensures that their knowledge systems are preserved as historical artifacts and living, evolving frameworks with potential solutions for modern-day challenges such as environmental sustainability, equitable governance, and community development.

The significance of this study also lies in its potential to reshape mainstream narratives around leadership. While Western or corporate paradigms have largely dominated leadership studies, this research introduces indigenous perspectives that are deeply ethical, participatory, and holistic. These leadership styles challenge contemporary norms and offer an alternative understanding of power and governance, where decisions are collective, roles are inclusive, and leaders emerge organically from within the community. By studying the tribes of Purulia, this research highlights their resilience and ingenuity, demonstrating that indigenous leadership styles are both relevant and invaluable in addressing pressing global issues, such as climate change, social inequality, and cultural erosion. The study holds cultural and social significance as it validates and empowers tribal communities by recognizing their contributions to leadership thought. It challenges stereotypes of tribal societies as "backward" and instead positions them as custodians of rich knowledge systems that have withstood the test of time. For policymakers, the findings from this research can inspire more culturally sensitive developmental initiatives that include tribal voices and respect their leadership structures.

At the outset, researchers can assert that this study fulfills an urgent need to preserve and understand indigenous leadership styles, while underscoring their broader significance in leadership discourses. Focusing on the tribes of Purulia bridges the gap between traditional indigenous knowledge and contemporary leadership frameworks, offering insights that are both regionally grounded and globally relevant. It not only honours the wisdom of tribal communities but also enriches leadership studies with alternative models that emphasize inclusivity, sustainability, and collective well-being.

II. REVIEW OF RELATED RESEARCH LITERATURE

Xaxa, V. (2013). Conducted a study on "Leadership in Tribal Communities: Traditional vs. Modern Practices." Researchers discuss how leadership in tribal communities, such as those in Purulia, operates in a decentralized manner, often in contrast to the hierarchical models seen in mainstream Indian society. This study examines the role of wisdom, experience, and consensus-building in tribal leadership, where elders often assume leadership roles, particularly during times of crisis or periods of change.

Gupta, R. (2014). Conducted a study on "Sustainability and Traditional Leadership: A Tribal Perspective.". In this study, researchers investigate the role of tribal leadership in promoting sustainability. The research highlights how tribal leaders sustainably manage resources by utilizing indigenous ecological knowledge. In Purulia, this form of leadership embodies the understanding that leaders must strike a balance between community needs and environmental stewardship.

Bhowmik, S. (2015). Conducted a study on "The Role of Elders in Tribal Leadership." Ethnographic Studies in Tribal India. This study delves into the role of elders in tribal leadership. Bhowmik argues that elders possess unique wisdom, often passed down orally, that is essential for maintaining social harmony and guiding younger generations. This model is particularly relevant for Purulia's tribes, where the authority and knowledge of elders, combined with their understanding of ancestral customs, provide the foundation for leadership.

Sen, D. (2016). Conducted a study on "Visionary Leadership in Tribal Societies: A Case Study of Purulia." The researcher focuses on the visionary aspect of tribal leadership, particularly in Purulia, where leaders are seen as problem-solvers and visionaries who guide their communities toward sustainable futures. This leadership style is deeply rooted in indigenous knowledge about land management, spirituality, and collective welfare.

Das, A. (2017). Conducted a study on 'Tribal Leadership and Conflict Resolution'. Researchers investigate how tribal leadership plays a crucial role

in resolving conflicts within the community. Tribal leaders serve as mediators and play a crucial role in ensuring justice through traditional or customary laws. This conflict resolution system, based on consensus and dialogue, is prominent among the tribes of Purulia, where leaders guide the community through disputes while maintaining respect for traditional norms.

Bhatnagar, M. (2018). Has investigated a study entitled 'Tribal Governance in the Contemporary Context of India'. This research highlights the evolving nature of tribal governance in India, emphasizing the importance of retaining traditional governance structures while integrating modern concepts. Bhatnagar notes that tribal leaders in Purulia, like those in other regions, blend traditional knowledge with modern administrative challenges, ensuring the preservation of culture and sustainability in their leadership.

Munda, S. (2021). Conducted a study on 'Leadership, Identity, and the Future of Tribal Communities.'. Researchers discuss the complex relationship between leadership, cultural identity, and the future of tribal communities. He argues that leadership in tribal societies, such as those in Purulia, is fundamentally about preserving cultural identity. Leaders are expected to manage the present and safeguard the traditions and knowledge that will ensure the community's survival and flourishing in the future.

Jana, S. (2020). Conducted a study on 'Traditional Leadership in the Tribal Communities of West Bengal'. The researcher's work examines tribal leadership specifically in West Bengal, including Purulia. She identifies a participatory style of leadership where decisions are made collectively, and leaders are often chosen for their wisdom and ability to mediate conflicts. This mirrors the collaborative leadership styles observed among the Purulia tribes, emphasizing community and collective decision-making over individual authority.

Pati, B. (2021). Conducted a study on 'Cultural Resilience and Leadership among Adivasi Communities'. Researchers emphasize how indigenous leadership is resilient in the face of modern challenges, including political and economic pressures. Leaders are seen as guardians of culture and tradition, guiding their communities through external changes while anchoring in indigenous knowledge systems. This has substantial implications for understanding the leadership styles

of Purulia's tribes, where leadership is inextricably linked to preserving cultural identity.

Randall, M. (2022). Conducted a study on 'The Native American Leadership Model'. This model offers a unique framework for understanding leadership through core tribal values. The model emphasizes the importance of ceremony, spiritualism, and a community-centric approach to leadership. The concept that tribal leaders must reclaim and assert their leadership based on cultural perspectives aligns with the traditional leadership styles of Purulia's tribes, where respect for elders and deep cultural knowledge form the basis of authority.

III. RESEARCH GAP

There has been growing interest in indigenous leadership styles, particularly regarding how cultural, social, and environmental contexts shape community life.

In recent years, there has been growing interest in indigenous leadership styles, particularly in how the cultural, social, and environmental contexts influence these styles. However, much of the existing research focuses on the practical aspects of indigenous leadership, including community governance, resource management, and political structures. While some studies have examined the role of indigenous leadership in tribal communities and its influence on local culture, a significant gap exists in understanding how these leadership styles can be adapted and incorporated into modern institutional frameworks, particularly in education. Furthermore, the literature often overlooks how leadership in indigenous communities can contribute to educational management in a way that respects traditional knowledge and contemporary educational practices. This study aims to fill this gap by exploring the leadership styles reflected in indigenous communities, specifically in Purulia, and investigating how these styles can be integrated into education management systems.

IV. RESEARCH QUESTIONS OF THE STUDY

1. What are the leadership styles reflected in these indigenous communities?

2. What are the possibilities of incorporating the Indigenous leadership styles within education management?

V. OBJECTIVES OF THIS STUDY

1. To know the leadership styles reflected in the Indigenous community

2. To explore the possibility of incorporating these Indigenous leadership styles within education management

VI. METHODOLOGY AND DATA COLLECTION TECHNIQUES

This study employs a qualitative research methodology to explore the leadership styles among the tribal communities of Purulia. Data collection techniques include field visits, in-depth interviews, and focus group discussions with tribal leaders, elders, and community members to capture their lived experiences and indigenous knowledge. Participatory research is conducted to understand leadership practices in their natural setting, while secondary data from existing literature, reports, and historical records provide contextual support. This approach ensures a comprehensive understanding of tribal leadership styles and their reflection in indigenous knowledge systems.

6.2. Methodology

This study employed a qualitative research design, utilizing case study methodology to explore the leadership styles of indigenous communities in Purulia. The primary data collection techniques included semi-structured interviews with key informants, participant observation, and document analysis. Key informants include tribal elders, community leaders, educators, and local administrators with experience in traditional leadership practices and the contemporary education system. Interviews were conducted in the local language to ensure cultural sensitivity and accuracy of responses. These interviews were supplemented by direct observations in tribal communities, with a particular focus on leadership practices during community gatherings, decision-making processes, and interactions between leaders and community members. Document analysis reviewing records from local schools, educational policies, and reports on tribal leadership structures.

The data collected was analyzed using thematic analysis to identify recurring themes and patterns related to leadership styles, the role of traditional knowledge in leadership, and the potential for integrating Indigenous leadership practices within educational management. This approach allowed for an in-depth understanding of the dynamics of tribal leadership and its implications for education, providing valuable insights for future educational reforms.

VII. DISCUSSION

Village Administration System of Santal Community:

The rural administration of the Santal community is based on a well-organized and traditional structure. This system plays a vital role in conducting social, cultural, religious, and administrative activities. It is essential to preserve their identity and unity. The Santal community maintains peace, brotherhood, and prosperity through this traditional knowledge. One is that they have a way of living collectively; in this regard, the words of UNESCO, "Save yourself and let others live", are very relevant and vital based on the administrative structure of the Santal community. The Santal community is already a peace-loving group, lives in unity, and finds suitable resources for survival. They have learned their way of living from traditions and thus transmit the traditional customs and values in their society from one generation to another. This provides an important direction in the current education system. Therefore, the researcher has presented the administrative system of the Santal community through research.

The Santal rural administration is comprised of five individuals who are collectively referred to as Morehat. These five members are:

1) Majhi Haram   2) Jog Manji   3) Pernik 4) Godet   5) Nayak

The position and responsibilities of these five members in the administrative structure of the tribal community are discussed below.

1. **Majhi Haram:** The village headman, the supreme leader of the administration, makes the final decision in any case. He manages the village's social, cultural, and administrative activities. Majhi Haram listens to everyone's opinion and resolves any disputes or conflicts in the town. He follows the traditional rules and regulations to maintain the village's peace. Additionally, the Majhi Haram is also essential during village weddings, births, deaths, and religious festivals.

2. **Jog Manji:** Village Deputy Head, in the traditional Santal community, the Jog Manji plays a significant role in maintaining peace and order within the community. He carries out the orders of the Majhihadam and helps in various religious ceremonies. In the absence of the Majhi Haram, he performs all the duties of the Majhi Haram. His responsibilities include resolving disputes or conflicts between community members, administering the judicial system, and making fair and impartial decisions. Preserve the Santal community's traditions, culture, and moral values of the Santal community and pass them on to the next generation, negotiating on behalf of the community with outsiders and taking steps to solve other problems of the village or community

3. **Paranik**: An essential part of the well-organized rural administration of the Santal community is the Paranik—the chief assistant of the Majhi, who implements decisions and helps the Majhi in various tasks. In the absence of the Majhi Haram and Jog Manji, the Paranik is responsible for performing all the duties. If any dispute or conflict arises in the village, the Paranik works jointly with the Majhi to resolve it. The Paranik plays a crucial role in upholding the traditional rules and customs of the town. He ensures that the villagers follow the rules.

   The Paranik also plays an active role in the village's religious and social festivals. He helps organize and maintain order in the Santhal society.

   Finally, it was revealed that the Santhal community sustains its society through customary laws. It was also observed that the fewest judicial cases were found in the Purulia district court among the Santhal community. Thus, researchers can conclude that even today, the Santhals' customary laws remain effective and have effectively resolved conflicts within society through their customary law.

Figure 1: Pyramid of Village Administration of Tribal Community

4. **Gadet** is a vital post in the traditional village administration of the Santal community. Gadet conveys various important decisions or messages of the village to everyone. He gathers the people of the town as per the orders of the Majhi or Naik. He is the protector of the village society and is responsible for maintaining security and order within it. He helps maintain order in the village in the event of a crime or dispute.

5. **Nayek:** Religious leader, who conducts religious rituals, various pujas and festivals, such as Baha Parab, Sohrai Parab, and other traditional festivals. Events like marriages, births, and deaths in the village. He plays a vital role in worshipping gods and goddesses and pays homage to the forces of nature. The keeper of tradition, the Nayek, is the keeper of the customs and traditions of the Santal community. He works to maintain the continuity of culture and tradition from one generation to the next. He also listens to everyone's opinions and resolves any social problems or disputes in the village. He strives to maintain peace and order in the village

7.1. Administrative Structure of Majhi Pargana

The traditional administrative structure of the Santal community is an integral part of their social and cultural life. The Desh Pargana, Muluk Pargana, Pir Pargana, and Ghat or Majhi Pargana have a special role within this structure. These Parganas are interconnected, helping to maintain order in society and preserve the traditions and culture of the Santals.

1. **Desh Pargana**: The Desh Pargana is the highest administrative unit within the Santal society. It is a symbol of unity and solidarity of all the Santal people. Major festivals and social rituals are organized under the leadership of the Desh Pargana. It serves as a mediator in resolving disputes between different villages and plays a vital role in maintaining inter-village relations.

2. **Muluk Pargana**: The Muluk Pargana is a regional administrative system. It works at the country's intermediate level. It coordinates among the

villages of the Muluk Pargana region and assists them in resolving their problems. It leads local development activities and social responsibilities. The Muluk Pargana establishes connections with the Majhis of different villages, and a proper social system is built.

3. **Pir Pargana**: The Pir Pargana mainly takes responsibility for the judiciary. Its role is immense in maintaining law and order in the Santal society. It enforces social rules and regulations and resolves family and social disputes. According to the Santal tradition, the Pir Pargana ensures fairness in the judicial process and maintains societal peace and stability.

4. **Ghat Pargana**: The Ghat, also known as Majhi Pargana, is responsible for managing the environment and natural resources. It manages the rivers, water bodies, and other natural resources appropriately. Since rivers and water bodies play a crucial role in the lives of the Santals, the Ghat Pargana strives to resolve these disputes and protect natural resources. The work of the Majhi Pargana is vital in protecting the environment and preserving the traditional way of life.

The country, Muluk, Pir, and Ghat Pargana, form the basis of the traditional structure of the Santal community. These Parganas preserve their
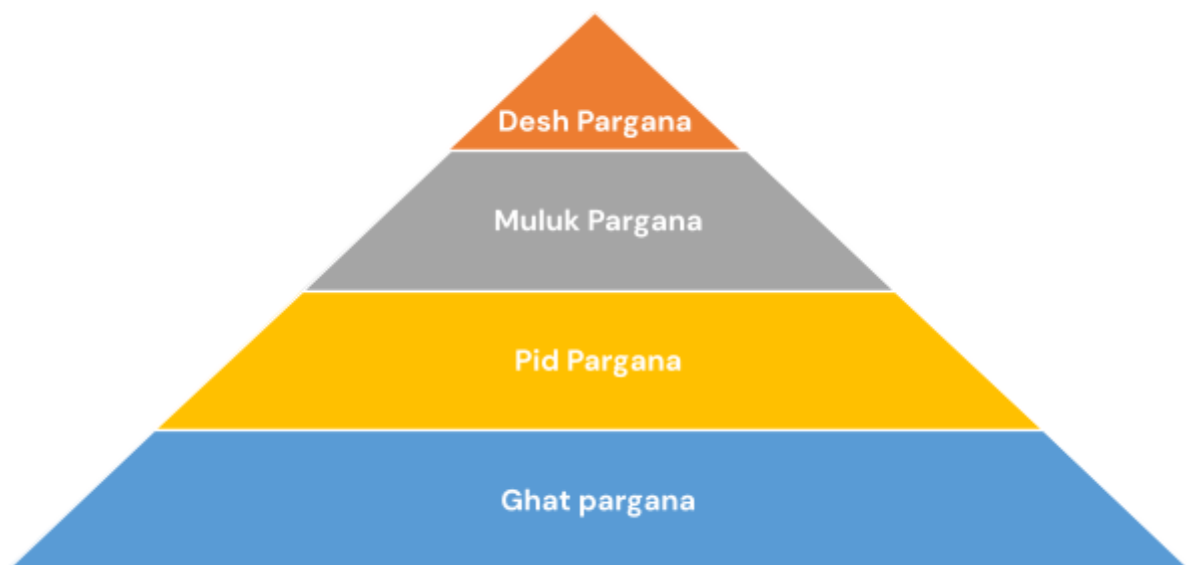
social, cultural, and ecological balance, symbolizing their identity and unity.

Figure 2: Indigenous administrative structure among the Santhal community in eastern India

VIII. CONCLUSION

We can integrate this Santhals administration system into the current education curriculum. In doing so, the relevance of education will increase, and we can form place–based, need–based, and decontextual educational processes. The traditions and customs that have been lost over time can be revitalized and celebrated. At the same time, regional aspects can be emphasized in the existing education curriculum, making it enjoyable and inspiring for students as they recognize the connection between school and society. While ensuring the quality of education, students will be encouraged to find joy and discover their passions; they will learn, understand, and create. They will observe, comprehend, and produce. Above all, the gap between society and education will be bridged. The slogan of education in life will truly be reflected, and through the integration of the Santhal administration system into the existing education curriculum, the relevance of education will increase. The traditions and customs that have been lost over time can be revitalized and celebrated once more, simultaneously highlighting regional aspects within today's educational framework. This approach will be enjoyable and inspiring for students as they discover the connections between school and society. By ensuring the quality of education, students will be motivated and find joy in learning; they will know, understand, and create. They will see, they will understand, and they will make. Above all, the gap between society and education will be bridged, truly reflecting the slogan of education in life and education for life.

We can add the Santhals administration system to the current education or curriculum. In that case, the relevance of education will increase. The traditions and customs that have been lost over time can be reorganized and celebrated again. At the same time, regional aspects can be brought to the fore in the current education curriculum, which will be enjoyable and hopeful for the students because they will find the similarity between the school and the society, while ensuring the quality of education in the school, the students will be encouraged and find joy, they will know, understand and create. In this way, we will transform knowledge, skills, and value, and students will be able to assimilate and accommodate the knowledge pattern from the known to the unknown, from near too far, from abstract to concrete, and finally, they will understand, which leads to creativity. By the indigenization of social justice and values, we eradicate the discrepancy between society and education. We will be able to formes context cum content based pedagogy, in a real sense. As Professor Dewey rightly said, "*education is life and life is education*; only through the indigenization of our curriculum with traditional knowledge systems can we bridge the gap between what we think and what our society demands. "

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Eoliaki Opsi: Computer Generated Compositions Using Environmental Data

Dimitri Voudouris[δ]

ABSTRACT

A computer-generated composition, software programs, site-specific elevation and climatic data from Ag. Ioannis, Prodromos, Farsala, Panagia, and Kastro locations in the province of Thessaly were vital in constructing the various compositions between 2013 - 2024. Grains from musique concrète and electronic sounds created a powerful way to experience complex micro-sound phenomena. Electronic waveforms are sinusoids at specified frequencies. Sampled acoustic waveforms are read from locations with or without frequency alterations. Together, they create sound diagrams of macro-environmental communication paths. The process derives its sound complexity from the amount of control data it receives. The sourcing, classification and categorisation of data from natural environments lead to inherent errors with data limitations. Extra care is needed to accurately represent data in analysing ecological dynamics, to engage and minimise discrepancies within systems.

Read Online: https://bit.ly/4dgkM8W

Author: **δ –** Senior clinical pharmacist, South Africa. Website: dimitri-voudouris.com | Email: 15voudouris@gmail.com

I. INTRODUCTION

Derived from the ancient Greek 'Eoliaki' refers to Aeolia, which is now Thessaly, a province in northern Greece, and 'opsi' is (view). Sounds processed in granular synthesis are separated categorically according to their sound intensity, timbre and are assigned to the frequency spectrum of the elevation data. Temperature and wind speed are climatic data assigned to amplitude and duration. A random order of events is established through the use of the Markovian chain, which is a memoryless probability distribution in which each event depends only on the state attained in the previous event and a non-memoryless random sampling process of cluster and stratified sampling in which the entire sampled population is considered. Performers Pliarhos Stilianos

(three-course bouzouki) and Antonis Taxidiotis (four-course bouzouki) contributed audio samples between (15 – 48 seconds) in duration, to the acousmatic part of the composition.

II. DATES SAMPLED AND SOFTWARE USED IN MAPPING, ELEVATION AND CLIMATIC DATA

Data sample dates: 04062013 – 04062014, 25012022 – 07022024, 16022017 – 15022018, 20012020 – 20012021. Climatic data: National Meteorological Service (HNMS). Map location: Topographic elevation data obtained from Google map (contour lines, contour intervals and contour indices) DEM images, 2D polygons from elevation contour polyline intervals created using Spatial Analyst supplemental tools. Surfer: contour, gridding, surface mapping software. TXC converter: converts GPS and mapping data.

Grapher: 2D & 3D technical graphing for scientists, engineers and business professionals.

Mathworks (Matlab): numeric computing platform for data analysis and processing functions like audioread, fft and findpeaks analyzes the frequency content.

Steinberg wavelab 11: sound editing program. GRNMILL, C++ granular synthesis: The samples processed using bandpass-filter, FFT-based FIR filtering with overlap-add method applied to frequencies.

Conversion of elevation data to frequencies

(X) co-ordinates	(Y) co-ordinates		Alt tuted (m)	Frequency (Hz)	
39,573440	22,161725	299792458	168441	1780	Data
39,573621	22,161898	299792458	171009	1753	Data
39,574974	22,162357	299792458	119041	2518	Data
39,575219	22,162279	299792458	113594	2639.1575083191	Data
39,575633	22,162271	299792458	105599	2838.970615252	Data
39,575992	22,162496	299792458	102259	2931.6975327355	Data
39,576293	22,162960	299792458	103036	2909.589444466	Data
39,576815	22,163908	299792458	110906	2703.1220853696	Data
39,577052	22,164488	299792458	108,34	2767	Data
39,577175	22,164899	299792458	109853	2729.0329622314	Data
39,577204	22,165231	299792458	118349	2533.1220204649	Data
39,577261	22,165632	299792458	123842	2420.7656368599	Data
39,577363	22,166330	299792458	118,06	2539.323	Data
39,577479	22,167127	299792458	109941	2726.8485642299	Data
39,577538	22,167524	299792458	105801	2833.5503256113	Data
39,577457	22,168051	299792458	98771	3035.2275262982	Data
39,577299	22,168593	299792458	93901	3192.6439335044	Data
39,577141	22,169263	299792458	94221	3181.8008511903	Data

Fig 1: Kastro N14 230523 conversion of elevation data to frequencies (excerpt)

Conversion of altitude (meters) to frequency (Hertz): Wavelength is the topographic distance (meters) which is the distance between successive crests or troughs of the wave = Traveling speed of light 3 x 10^8 (meters per second) / frequency (Hertz).
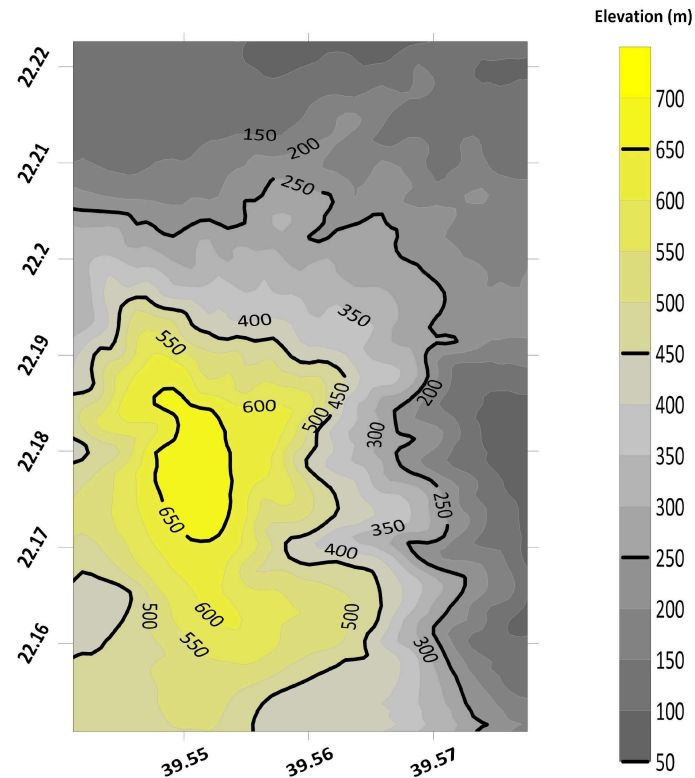
Fig2: *Contour, Gridding, Surface mapping from Kastro N14 230523*

III. STRATEGIC COHERENCE: CHAOTIC SIMULATION OF COMPLEX SYSTEMS

EOLIA is a visible simulation of inherent repetition patterns, self-organisation, similarities, constant feedback loops and interconnectedness within the randomness of complex systems. Establishing an order where elevation data (m) are assigned to frequency (Hz), timbre expressed by descriptive adjectives like bright, warm, mellow, harsh, clear, climatic data: temperature, wind speed is assigned to amplitude (db) and wavelet duration.
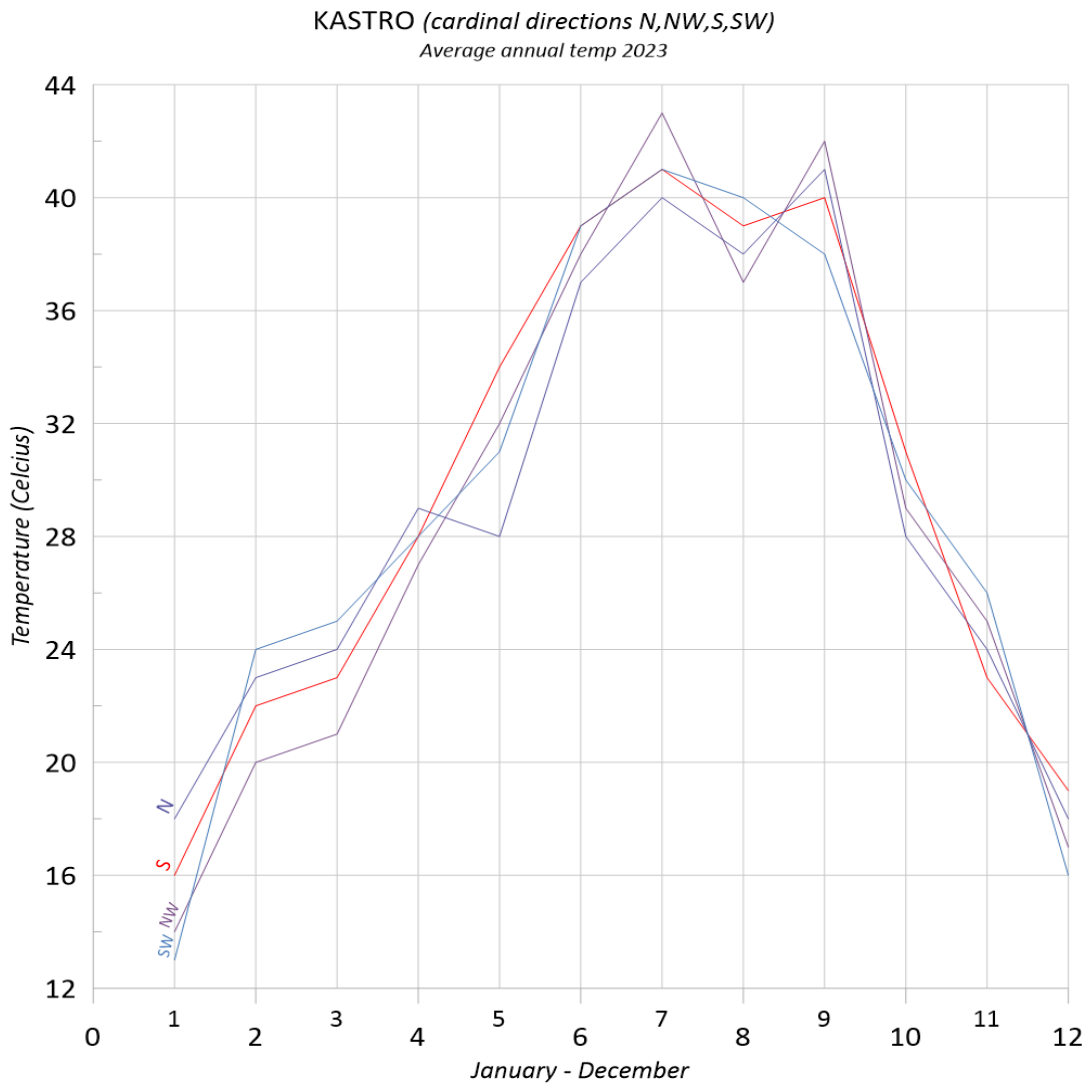
IV. LINKING CLIMATIC TEMPERATURE (C°) DATA TO DECIBELS (DB)

1) Conversion of temperature (Celsius) to absolute temperature, Kelvin (SI units), K = Celsius (°C) + 273.15.

2) Stefan–Boltzmann law calculates the radiant exitance (power emitted per unit area P/A (W/m^2) referred to as radiant intensity E = (W/m²), and states that the total energy radiated per unit surface area is proportional to the fourth power of the absolute temperature (Tk): $E = \sigma \times Tk^4$, E = radiant intensity (W/m²), σ (sigma) is the Stefan–Boltzmann constant 5.67 x 10^–8 W/m·K, T is the absolute temperature in Kelvin.

3) $\beta = 10 \times \log10$ (I/IO). β = Sound intensity (db) measures energy carried by sound waves, I = the intensity of radiation emitted (W/m^2), IO = (10^–12 W/m²) reference sound intensity.

If you have a source emitting both light and sound, you can measure the radiant intensity of the light and the sound intensity separately. You can then use the sound intensity to calculate the amplitude level (in db). The sound intensity level relates the sound energy to the perceived loudness.

NW 2023	T Max (C°)	T Min (C°)	Kelvin (Max)	Kelvin (Min)	E (max) (...x10^−6)	E (min) (...x10^−6)	β(db) max	β(db) min	β(db) ave
March	22	10	295.15	283.15	16.74	16.05	72.24	72.06	72.15
Feb	18	12	291.16	285.15	16.5	16.16	72.18	72.08	72.13
March	21	9	294.15	282.15	16.68	15.99	72.22	72.04	72.13
Oct	27	15	300.15	288.15	17.01	16.33	72.31	72.13	72.22
March	19	8	292.15	401.9	16.56	15.94	72.19	72.03	72.11
Feb	17	7	290.15	280.15	16.5	15.88	72.18	72.01	72.1
Sept	32	18	305.15	291.15	17.3	16.5	72.38	72.18	72.28
March	20	11	293.15	284.15	16.62	16.33	72.21	72.13	72.17
Feb	16	3	289.15	276.15	16.39	15.65	72.15	71.95	72.05
Sept	32	18	305.15	291.15	17.3	16.5	72.38	72.18	72.28

Fig 4: Kastro (NW cardinal) temperatures collected randomly converted to db values.
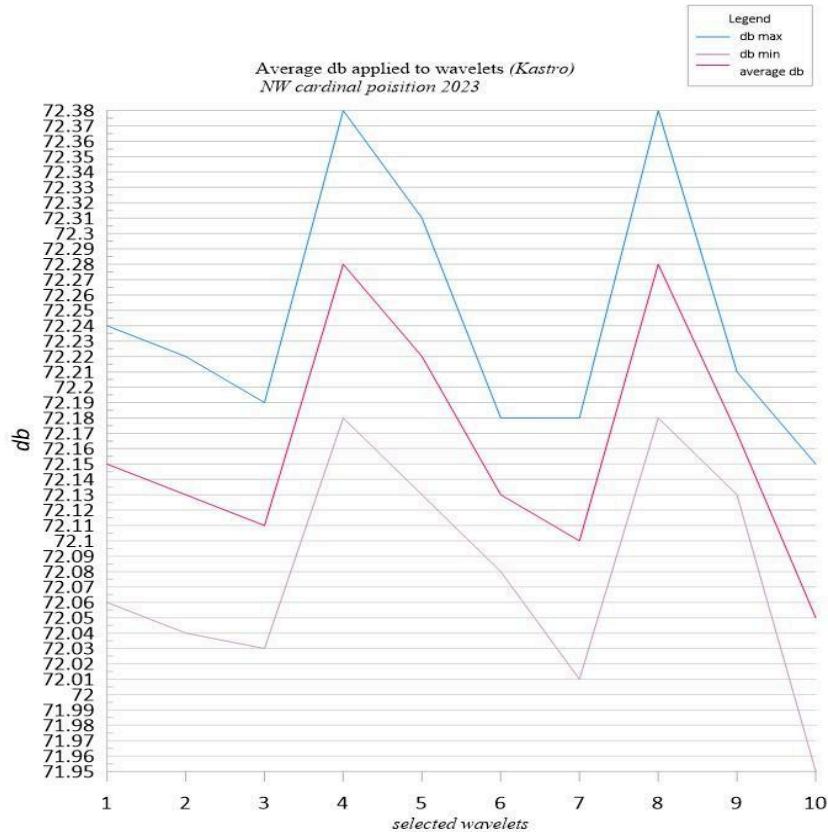
Fig 5: Average amplitude applied to wavelets

V. TEMPERATURE TO INCREASE OR DECREASE DECIBEL POSITIONING OF WAVELETS (SELECT ANY OF 6 DIFFERENT WAYS)

1. Calculate the average value of selected maximum and minimum temperature values, then plot β (db) average versus selected wavelets.
2. Select minimum temperature values from winter months captured (hourly from 11 pm to 6 am), then plot β (db) versus selected wavelets.
3. Select maximum temperature values from winter months captured (hourly from 8 am to 6 pm), then plot β (db) versus selected wavelets.
4. Select minimum temperature values from summer months captured (hourly from 10 pm to 6 am), then plot β (db) versus selected wavelets.
5. Select maximum temperature values from summer months captured (hourly from 6 am to 7 pm), then plot β (db) versus selected wavelets.

6. Select temperature maximum and minimum values, then plot β (db) set between the maximum and minimum (db) parameters versus selected wavelets.

Both selection processes (temperature and wavelets) are chosen by using random sampling.

VI. WIND SPEED TO AUDIO SAMPLE DURATION

Panagia tis Portas (referred to as Panagia) is a monastery of Pyli in Thessaly. The village is a 0.78km² area (780,000m²), having a side length of 883.18m. The wind travelling in the cardinal: south east location at (x) Km/hour is converted to mm/second; therefore, time (sound duration) in seconds = side length (mm)/wind speed (mm/sec).
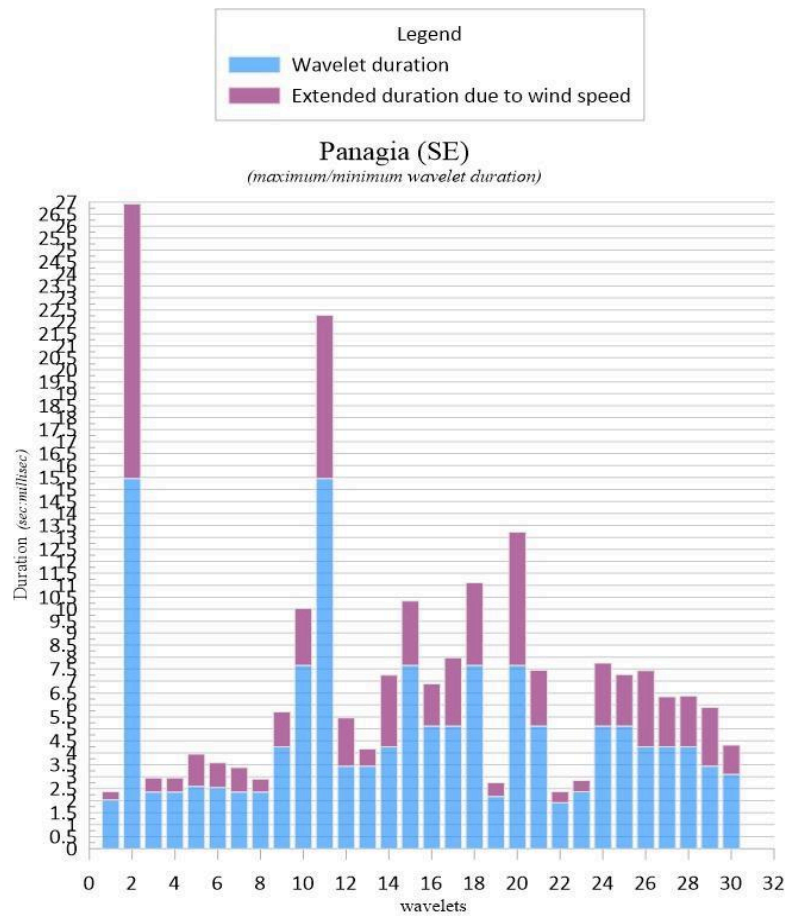
Fig 6: Maximum and minimum wind speeds (Km/h) captured every hour on a 24 hour cycle. Conversion to (mm/s), time = distance(mm/speed)(mm/s) determines the minimum/maximum audio sample duration applied to to extend duration of the score (indicated by purple marking).

The wavelet durations are chosen by random sampling.

Wavelets	Wind speed Min (Sec)	Wind speed Max (Sec)	Wind speed Min m/s	Wind speed Max m/s	Wind speed Min (Km/h)	Wind speed Max (Km/h)
1	2	2.3	441.59	384	1.59	1.38
2	15.5	26.8	56.98	32.95	0.205	0.12
3	2.4	2.9	368	304.54	1.325	1.1
4	2.3	2.89	384	305.6	1.382	1.1001
5	2.4	3	368	294.4	1.325	1.06
6	2.6	3.6	339.69	245.33	1.223	0.883
7	2.35	3.38	375.82	261.3	1.353	0.94
8	2.4	2.85	378	309.9	1.36	1.12
9	4.5	5.48	196.26	161.16	0.706	0.58
10	7.45	10	118.55	88.32	0.427	0.318

Fig 7: Ten wavelets: wind speed in km/h, min/s and seconds, captured as extended duration in fig 6 (excerpt).

VI. WIND SPEED DATA TO INCREASE EXTENDED DURATION (SEC) OF SELECTED WAVELETS (SELECT OF 6 DIFFERENT WAYS)

1. Calculate the average value of selected maximum and minimum wind speed values and plot average time versus selected wavelets.
2. Select minimum wind speed values from winter months captured (hourly from 11 pm to 6 am), plot time versus selected wavelets.
3. Select maximum wind speed values from winter months captured (hourly from 8 am to 6 pm), plot time versus selected wavelets.
4. Select minimum wind speed values from summer months captured (hourly from 10 pm to 6 am), plot time versus selected wavelets.
5. Select maximum wind speed values from summer months captured (hourly from 6 am to 7 pm), plot time versus selected wavelets.
6. Select wind speed maximum and minimum values and plot the time set between the maximum and minimum parameters versus selected wavelets. Both selection processes (temperature and wavelets) are chosen by using random sampling.

VII. MARKOV CHAIN TRANSITION PERIOD BETWEEN DIFFERENT STATES

Areas in the composition require extra assistance in selecting and placing wavelet sounds of a particular range of frequencies. Conceptually, several indecisive decision-making processes can arise. The computer offers extra assistance in selecting and placing, particularly in areas which may be questionable. Mathworks (Matlab) allowed for the programming of the non deterministic Markov chain and selective audio data analysis which offers the possibility of moving from one state to another depending on the current state and not on the sequence of events that preceded it, thus the state is allowed to change only at the discrete instants based on the probabilities associated with the transition matrix.

	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	
X1	0	0	0	0	0	0	0	0	0	0	[0]
X2	0.4	0.3	0.1	0	0.2	0	0	0	0	0	[1]
X3	0	0	1	0	0	0	0	0	0	0	[1]
X4	0.76	0	0	0.2	0.04	0	0	0	0	0	[1]
X5	0	0	0	0	0	0	0	0	0	0	[0]
X6	0	0	0	0.9	0	0	0	0.1	0	0	[1]
X7	0	0	0	0	0.14	0	0	0.2	0	0.66	[1]
X8	0	0	0	0	0	0	0	0	0	0	[0]
X9	0	0	0	0	0	0	0	0.5	0	0.5	[1]
X10	0	0	0	0	0	0	0	0	0	0	[1]

X1	2932
X2	2807
X3	2944
X4	2767
X5	2911
X6	2967
X7	2879
X8	2539
X9	2771
X10	2678

Fig 8: *Markov Chain transition matrix*

Fig 9: *(X) with specific frequencies*

Files X(1–10) contain a selection of grains from either one or both acousmatic and synthetic sources both with similar frequencies per folder an organic transition occurs in the selection of X1–10., the probability values can be replaced by time (6 min 36 sec 17 ms to 7 min 19 sec 02 ms) in fig9 (graph 69b) to establish positioning of the audio grains.
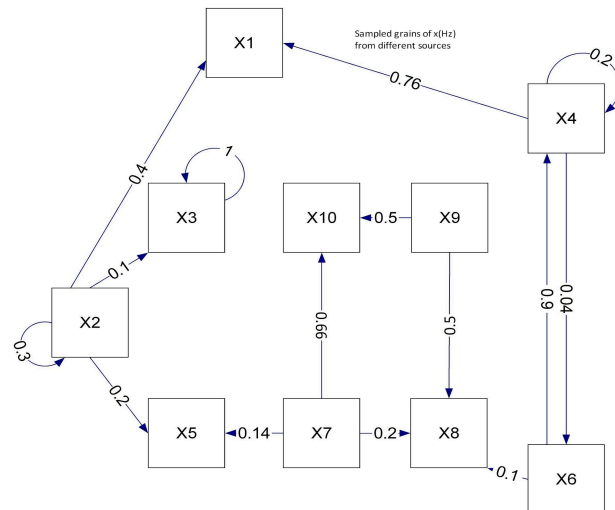
Fig 10: Markov chain graph 69b (Ag. Ioannis) evolution of (Xn) sampled grains envisioned as a direct connected network.
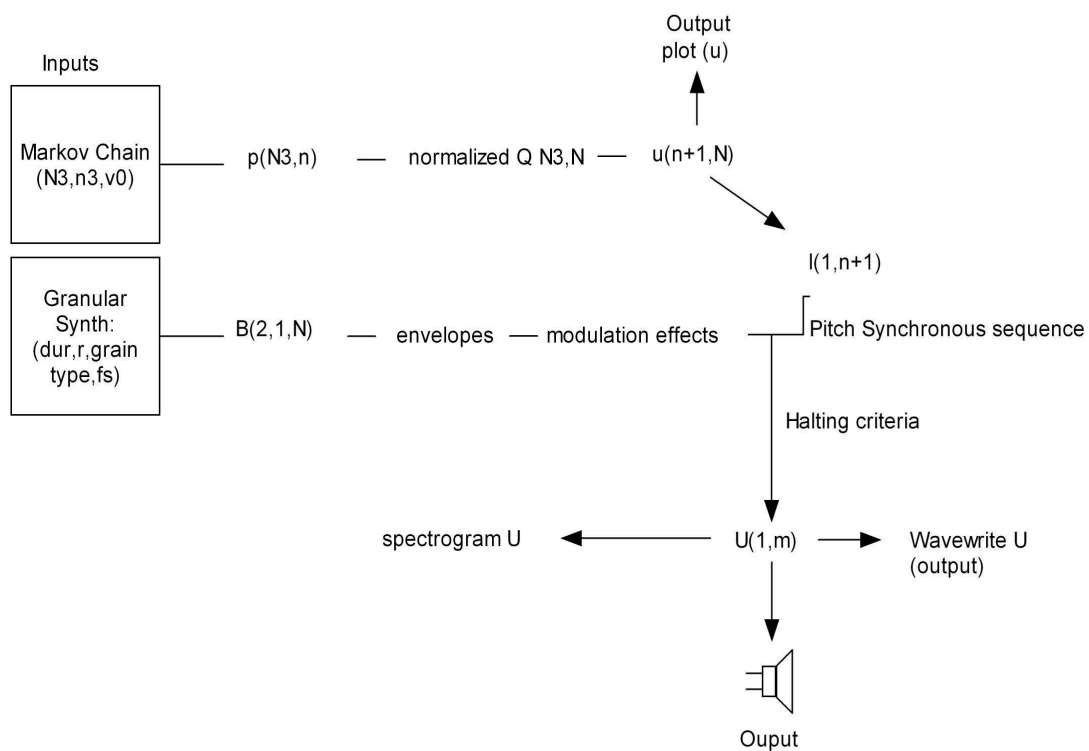

Fig 11: Markov Chain / Granular synthesis model (35f)

Moving from a current state to another, the process can be modelled by representing the system's discrete state (DCMC). Limitations such as a lack of memory, the "memoryless" property, produced two computing problems: failures in evaluating and decoding due to time constraints.

Random sample sampling

Limitations arising in the Markov process allowed for random sampling to take place within each group. Exhibiting memory from the total population gives each participant the same probability of being selected. The pseudo-random number generator determines systematic sampling, selects samples at fixed intervals and is a crucial tool in algorithms and techniques that detect or create clusters, particularly in sampling and simulation methods. Inherently deterministic, they will eventually repeat their output number and cannot eliminate this process. The use of pre-determined sequences, such as time frequency and sample positioning or placement, to achieve a desired effect.

One-stage cluster sampling within a selected frequency creates groups or clusters that represent the frequency, timbre, sound intensity and duration of the sampled population. If used sparingly, random selection of clusters and sampling occur within these selections. Cluster formations are mutually exclusive, so participants don't overlap between the groups. Two-stage cluster sampling randomly selects the cluster and then randomly selects the sampled participants from within that cluster. Stratified sampling splits a sample into predefined groups, or strata, based on differences between shared characteristics, e.g. shared characteristics of frequency, timbre, duration and amplitude.

Conducting cluster sampling

Sample: Decide the target wavelets and also the duration.

Create and evaluate sampling frames: Create a sampling frame by using either an existing framework or creating a new one. Evaluate frameworks based on coverage and clustering and make adjustments accordingly. These groups will be varied, considering the wavelet population, which can be exclusive and comprehensive. Members of a sample are selected individually.

Determine groups: Determine the number of groups by including the same average members in each group. So make sure each of these groups is distinct from one another.

Select clusters: Choose clusters by applying a random selection.

Create sub-types: It is bifurcated into two-stage and multi-stage subtypes based on the number of steps followed by researchers to form clusters.

Cluster sampling

Elements of a wavelet population are randomly selected to be a part of groups. Members from randomly selected clusters are a part of this sample. The composer maintains homogeneity between clusters, divides clusters naturally, the objective is to enhance competence.

Stratified sampling

The composer divides the entire population into even segments (strata), considers individual components of the strata randomly to be a part of sampling units, maintains homogeneity within the strata, and primarily decides the strata division. The key objective is to conduct accurate sampling, along with a properly represented wavelet population.

Multistage sampling

Considered an extended version of cluster sampling. In multistage sampling, you divide the population into clusters and select some clusters at the first stage. At each subsequent stage, you further divide up those selected clusters into smaller clusters, and repeat the process until you get to the last step. At the last step, you only select some members of each cluster for your sample. There is no need to have a sampling frame that lists every member of the population. That's why this method is useful for collecting data from large, dispersed populations.

Selections, location, timeline placements

The electronic sounds from each of the five climatic location data-position areas, which were extracted, are loosely generated by the localised dynamics of the composition, allowing for minimal deviations to occur and equally fair distribution of prepared (acousmatic) sounds to take place. The selected

sample number, duration and position of the existing wavelets are noted and are chosen to fill positions in a pre-defined area(s). Random selection of the areas in the timeline is exposed to conscious decision-making. e.g. (Xn) preselected (wavelets).

The status position is the duration, and selecting the area for placement of the wavelet.

If the duration status of the position is greater than that of the wavelet, the computer instructs the neighbouring wavelets to move closer together until the new position duration is equal to the replacement wavelet's duration or splitting of the selected wavelet.

If the duration status of the position is less than the wavelet duration, the computer instructs the neighbouring wavelets to move further apart to accommodate the position of the incoming

replacement wavelet or the splitting of the selected wavelet or the choice of choosing other wavelets from a different files until the desired wavelet equal to the duration space is found.

Random selection probability: No repetition of exact selection of wavelets is allowed within a particular location. Probability combinations and permutations of inserting silence, splitting, and rearranging wavelet/s, in their original location, are done in single or multiple ways.

Permutation with or without repetition: wavelets do not differ or differ in order of placement. Combination with or without repetition: each wavelet is selected once or more than once.
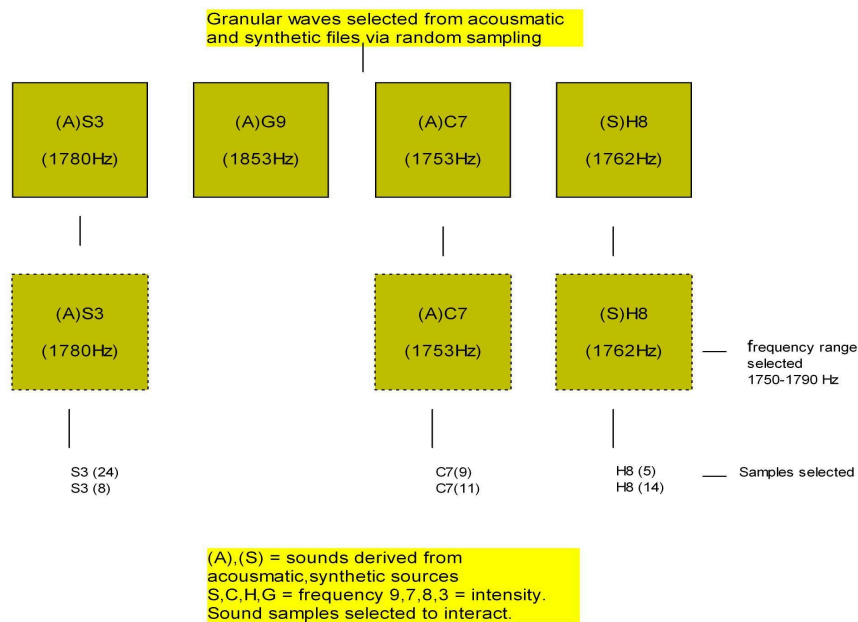

Fig 12: One–stage cluster sampling consisting of acousmatic and synthetic wavelets are categorised into group files with frequency, sound intensity (db) specifications. Random selection of wavelets from different files are either allowed to interact with other wavelets in combination used individually to explore new sound possibilities.
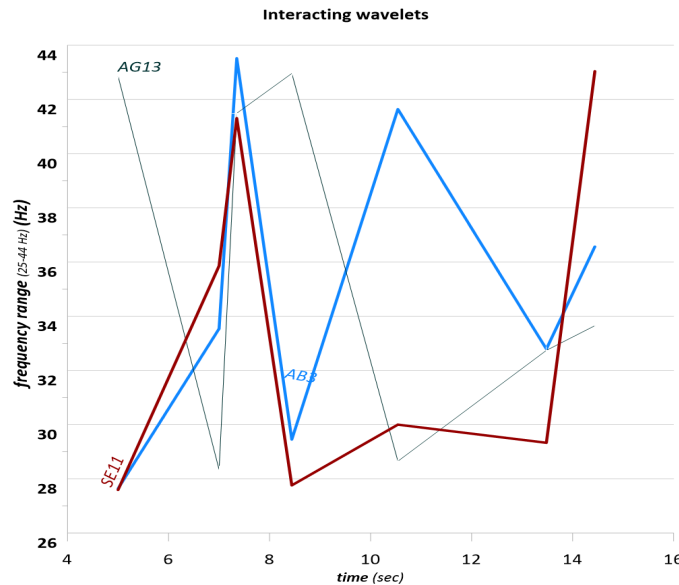
Interacting wavelets

Interacting wavelets from frequency and intensity folders.

Overlapping curves of wavelets per unit time shown graphically e.g. SE11 and AB3 overlap at 28 (HZ) , 37 – 39 (HZ), 34.2 (HZ). Samples from both SE11 and AB3 extracted from overlapping frequencies above are combined and labelled in newly created frequency folders. The wavelets are introduced to further granular synthesis in order to develop further which can be used in transition bridging between parts.

VIII. CONCLUSION

Naming various processes or events gives us a sense of comfort, as we do not know how else to express ourselves as we face decisions that must be made without knowing the exact outcome. Arguing that happenings in nature are random and elusive avoids the fact that these processes are extremely complex. In microscopical quantum provides us with real randomness without conscious reasoning it is proposed that one cannot measure accurately both the position and momentum of a particle at the same time, thus terms intrinsic, deterministic and probabilistic all depend on how we solve the measurement problem.

In a macroscopic scale, we usually resort to randomness to model extremely complex phenomena where it is infeasible to have all the necessary information required to predict the observed result. Sound becomes an instruction tool training the ear to follow contour lines which create points of connections between elevations and depressions in topographic maps. Encapsulating the five site–specific locations individually, in a microenvironmental status, they will act by

mimicking the communication paths seen in simplistic cellular specimens. Exchanging, disregarding and adopting information from multiple paths, in this project we focused on three of those paths: elevation and climate. In the macroenvironmental status, collectively, they represent the topographic terrain of Eolia, creating strong, tectonic sensations before semantic judgements are passed, for sound is an "energetic" and "spatial" phenomenon, seeking to immerse the listener in the underlying dynamics and motion of natural phenomena in abstraction.

Fractured moments depend on the data obtained, which rely on mathematical, scientific and deterministic complexities of chaotic systems, not to mention those in the underlying areas that remain hidden as we move in a linear timescale. The dynamic and kinetic solutions to this phenomenon, as sound is generated through matrices of its ideological limitations, actions, energy, and mental processes, borrow enlightenment from biological environments, reflecting on the physical reality created, sustaining our obscurity. As everything around us is formed of grains and photonic

radiance ruled by stochastic or deterministic rules, EOLIAKI OPSI proposes a small reflection of it, but symbolically and abstractly.

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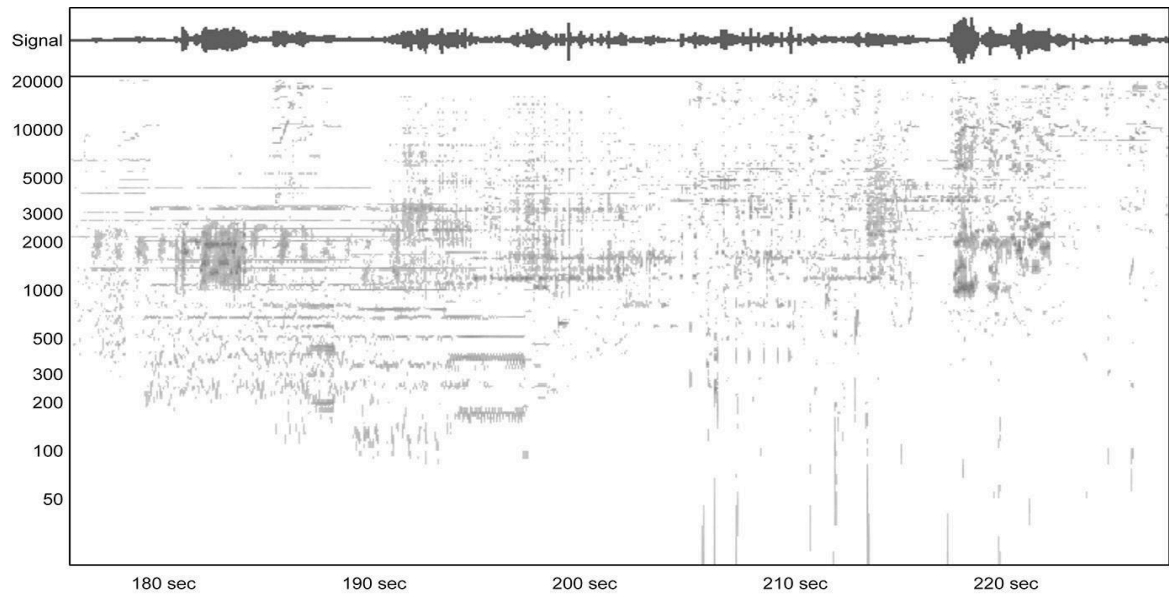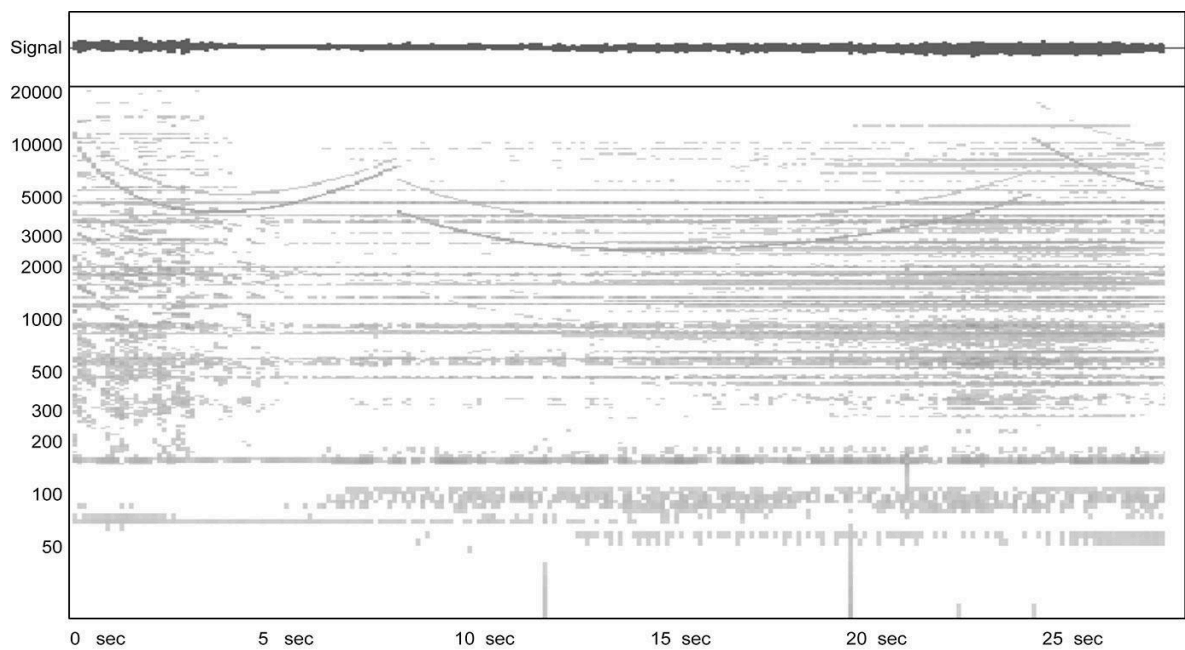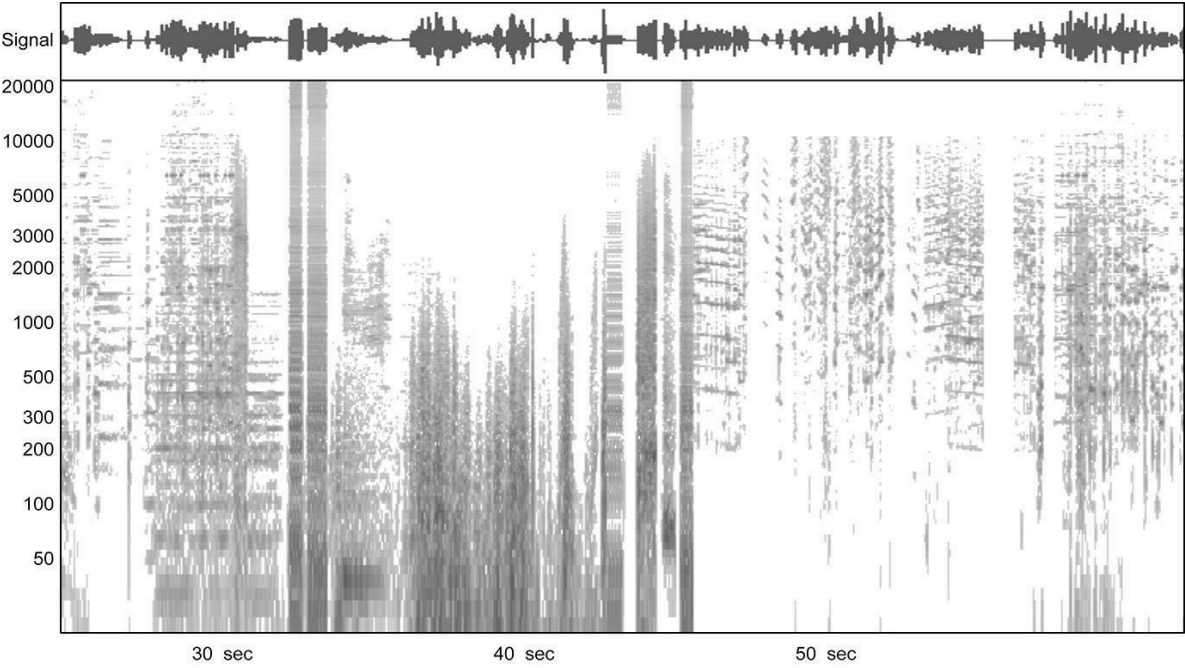
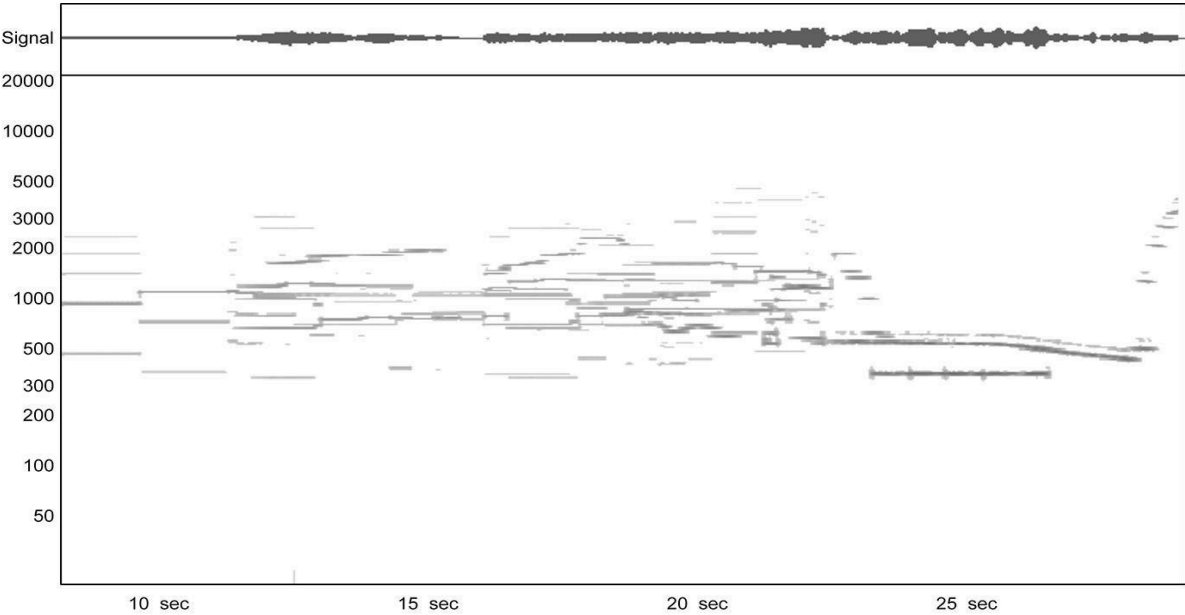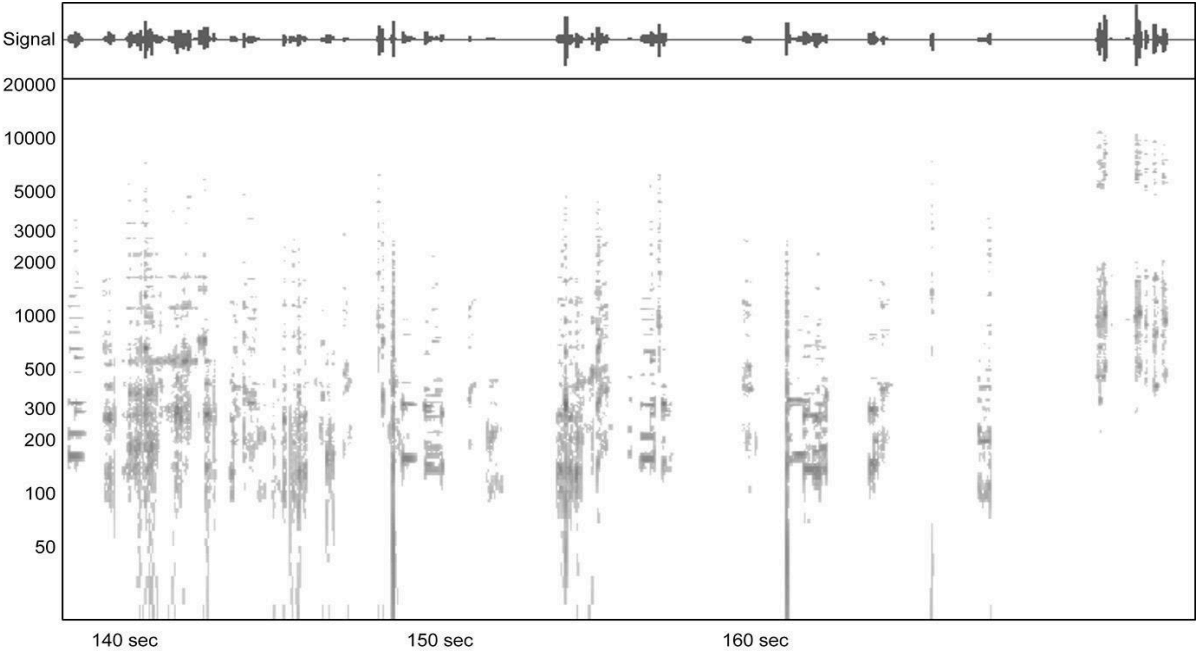# APPENDIX

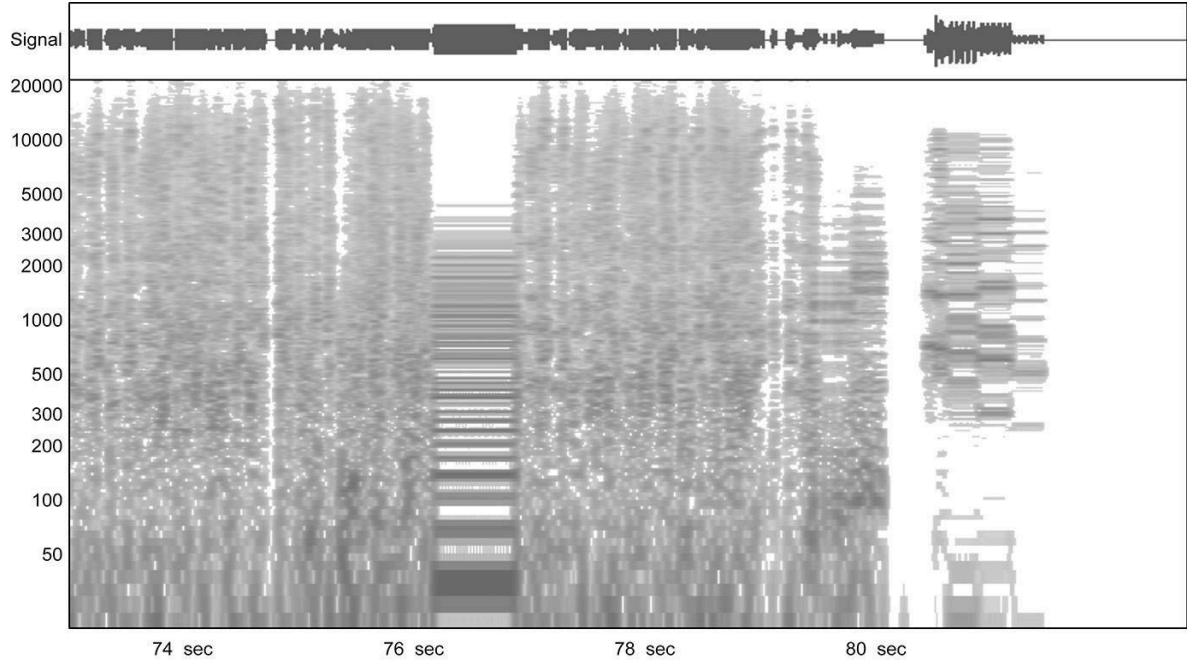## Spectrograms
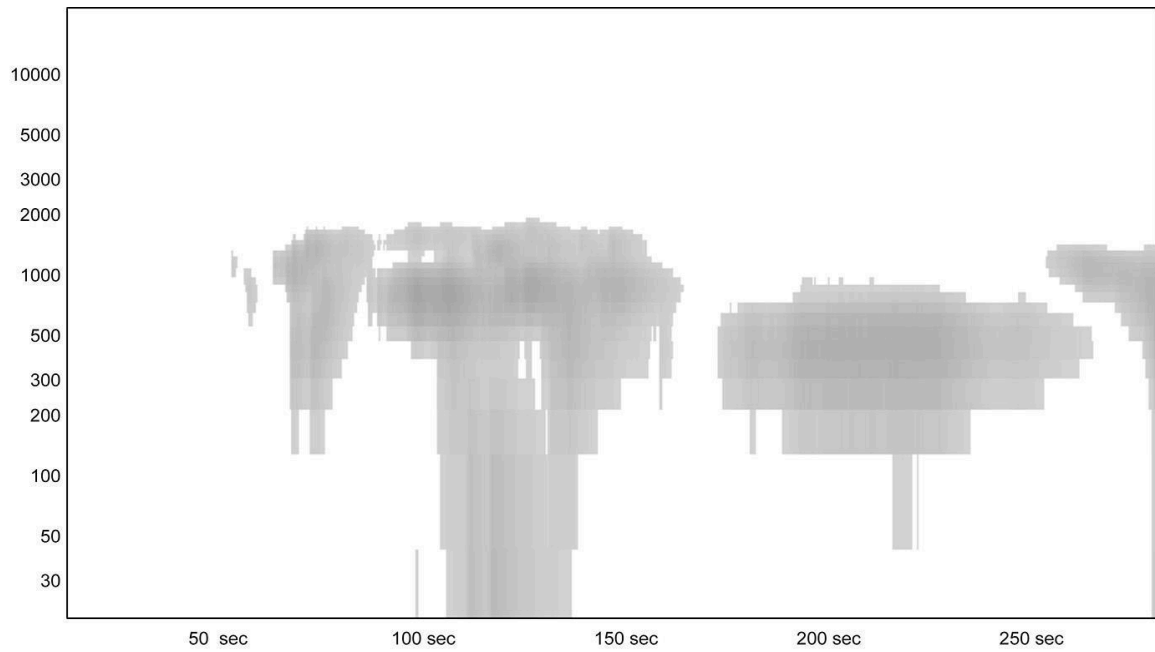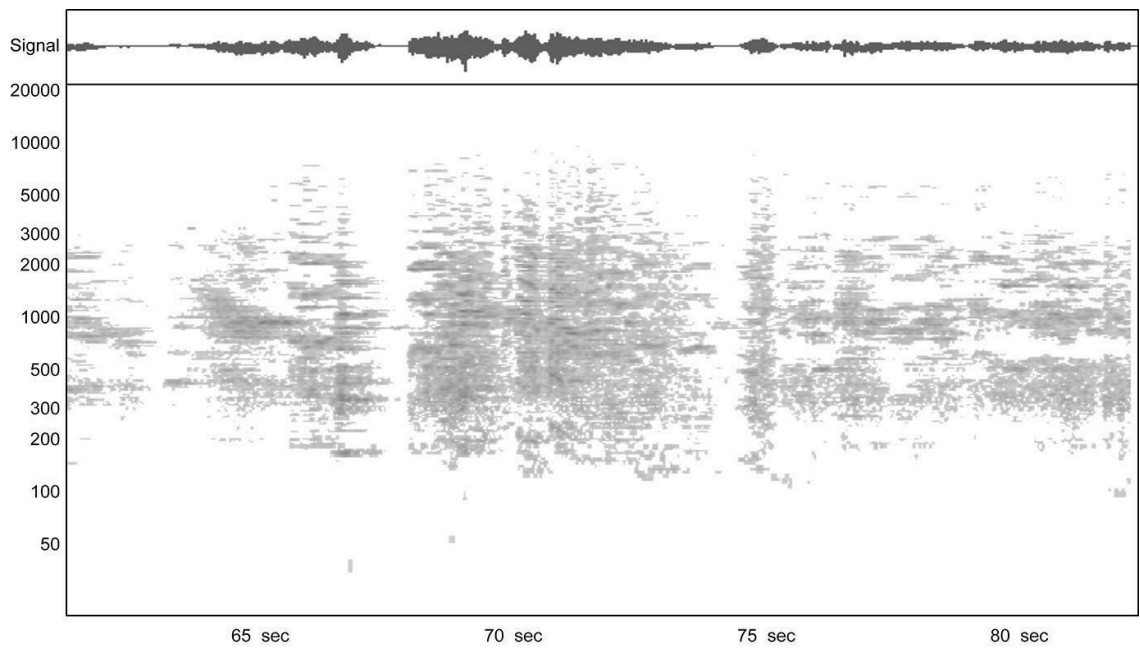

Ag. IOANNIS 1
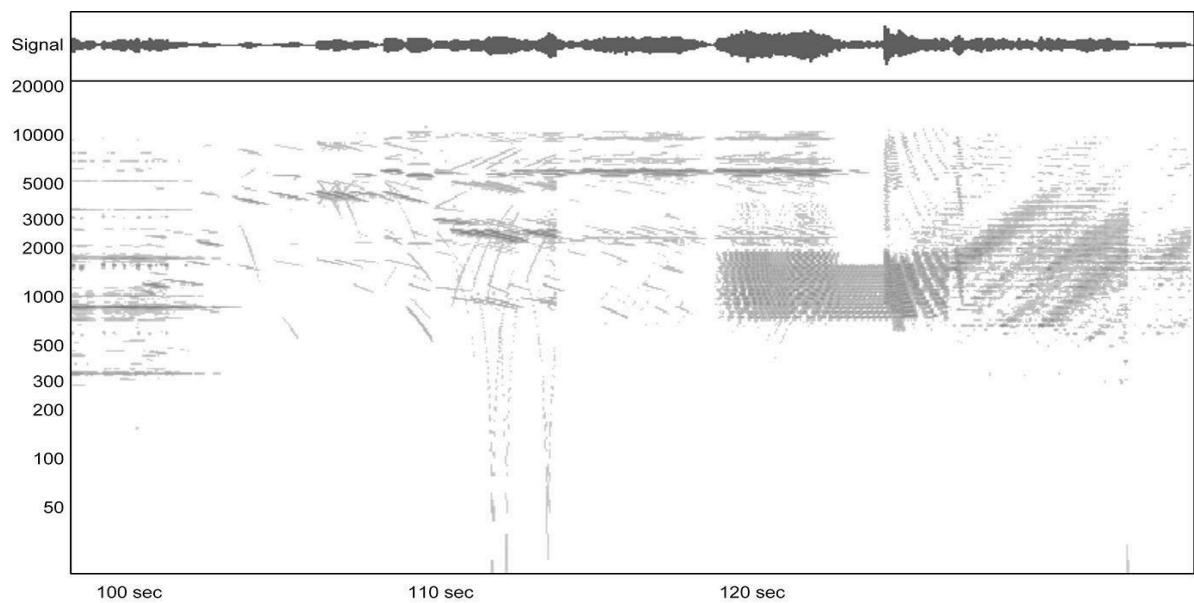
Ag. IOANNIS 2

Ag. IOANNIS 3

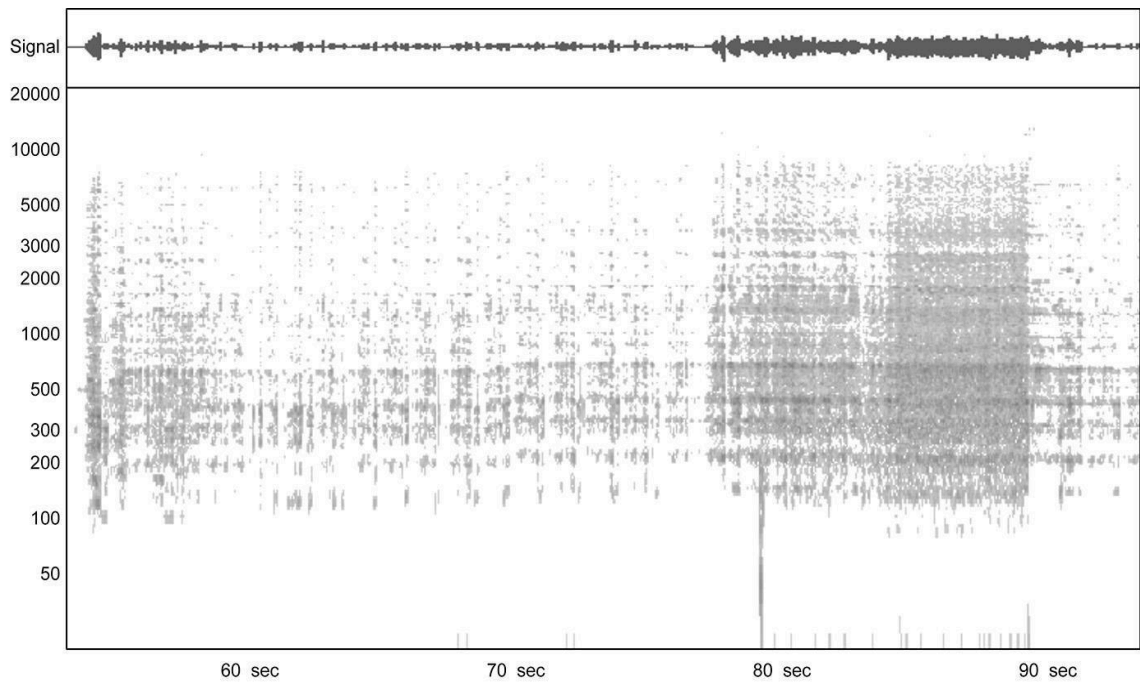Ag. IOANNIS 4

PANAGIA 1

PANAGIA 2

PANAGIA 3

PANAGIA 4

KASTRO 1

KASTRO 2a

Eoliaki Opsi: Computer Generated Compositions Using Environmental Data

KASTRO 2b

KASTRO 3

Eoliaki Opsi: Computer Generated Compositions Using Environmental Data

KASTRO 4

PRODROMOS 1

Eoliaki Opsi: Computer Generated Compositions Using Environmental Data
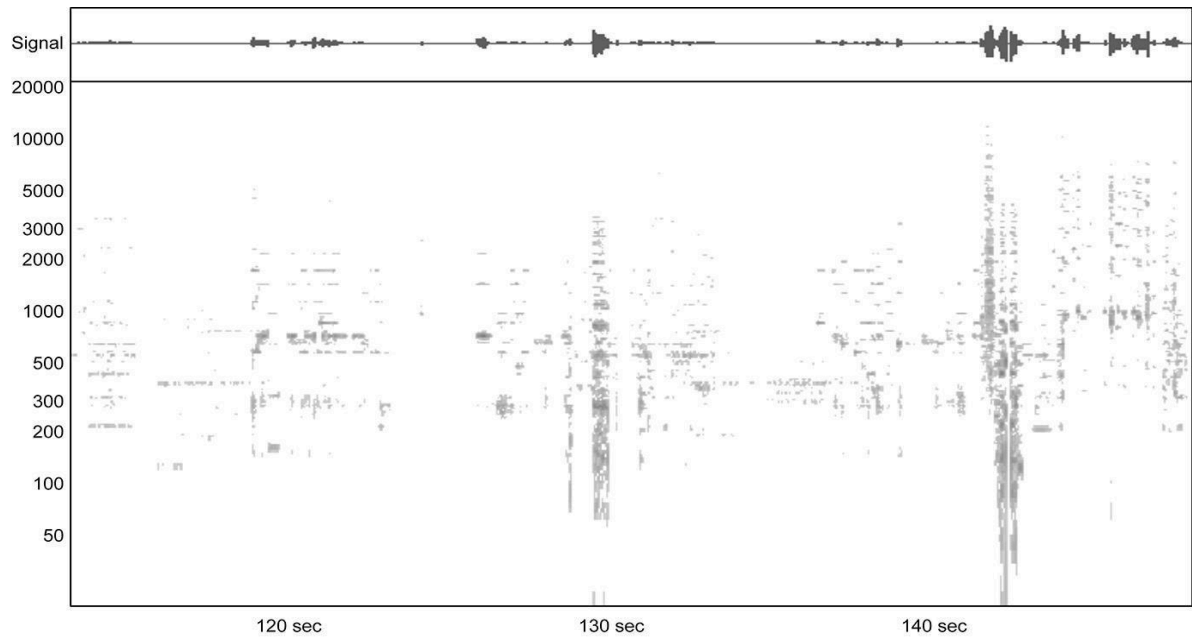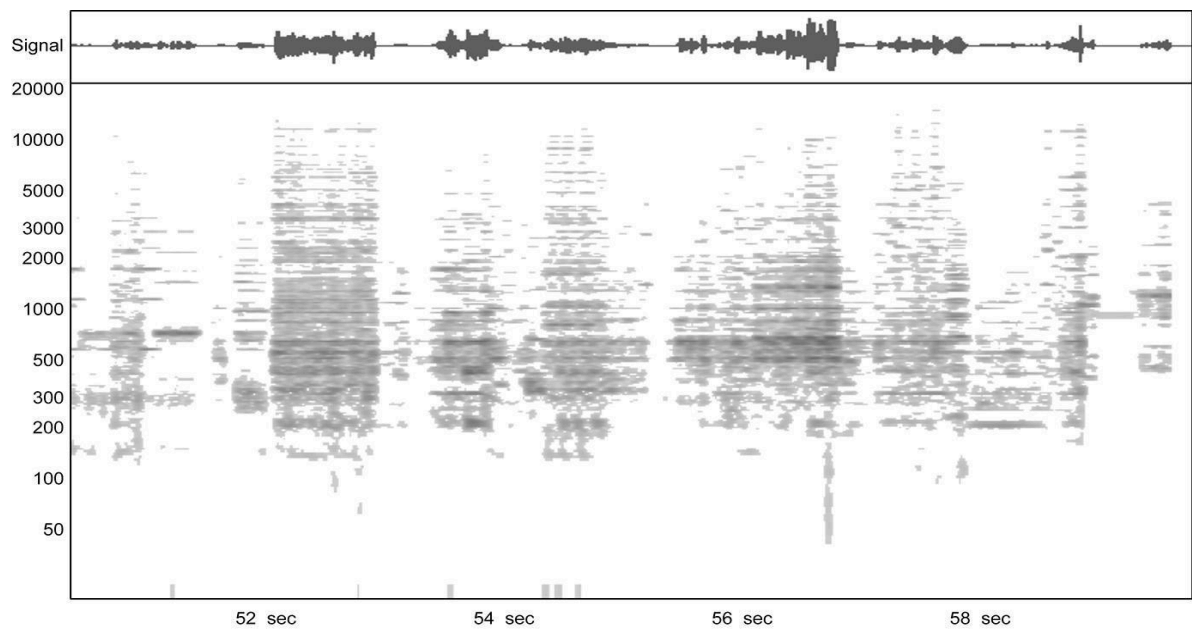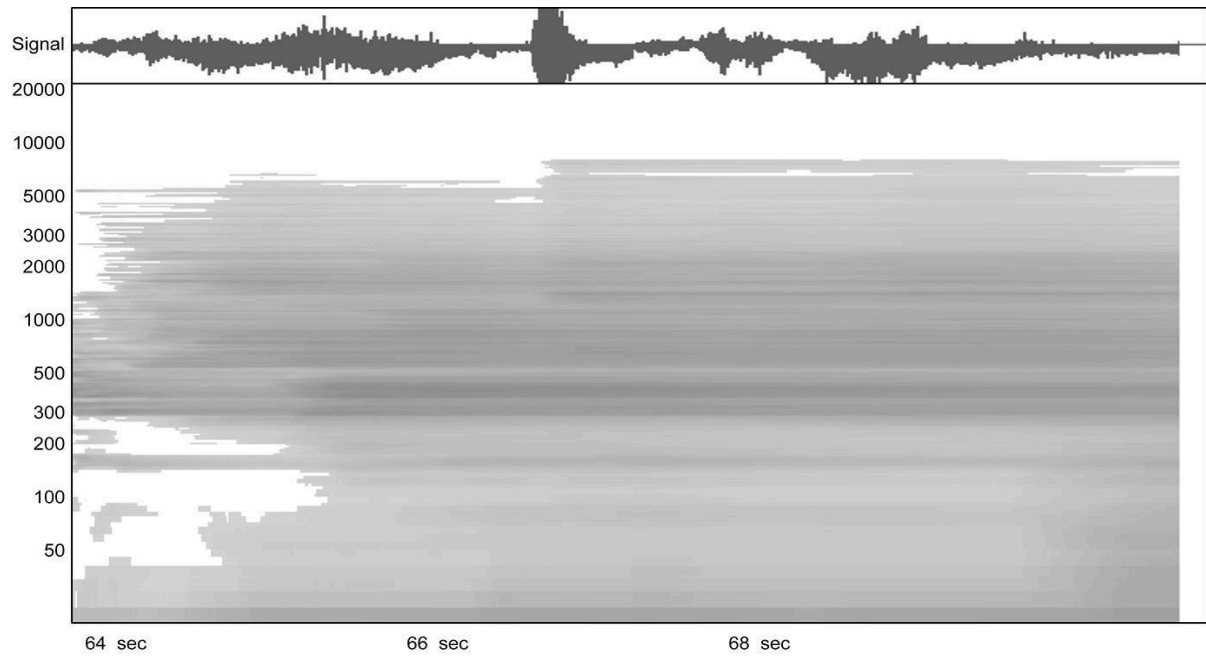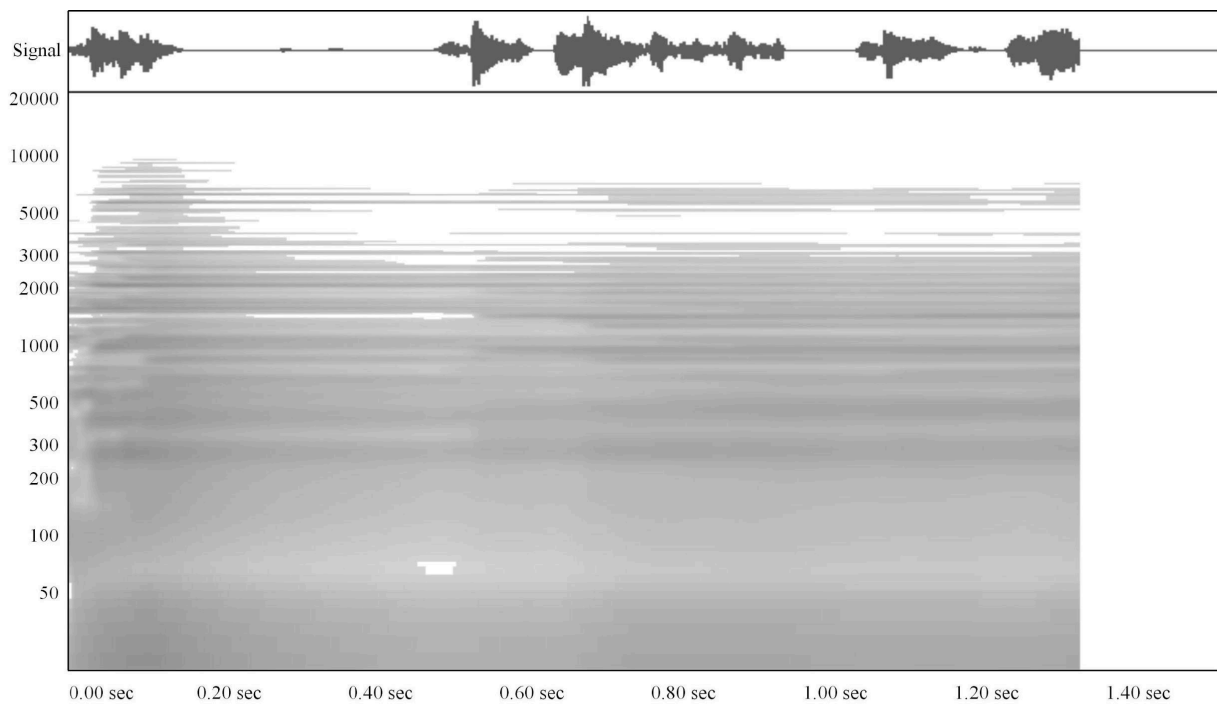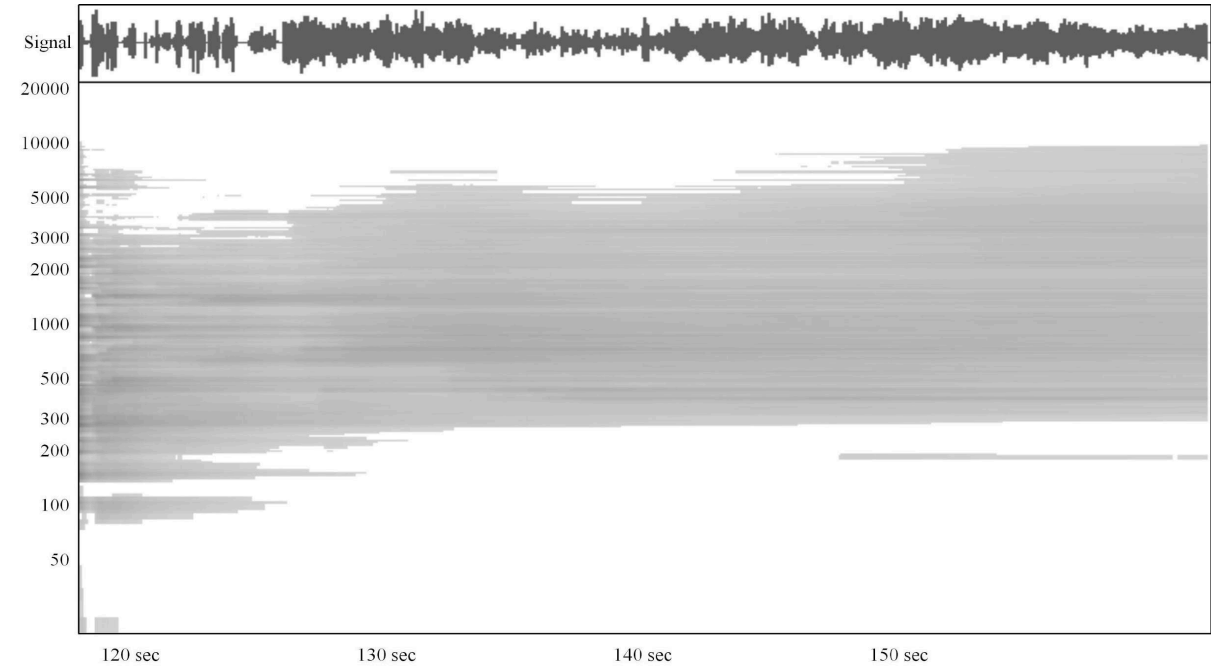
PRODROMOS 2
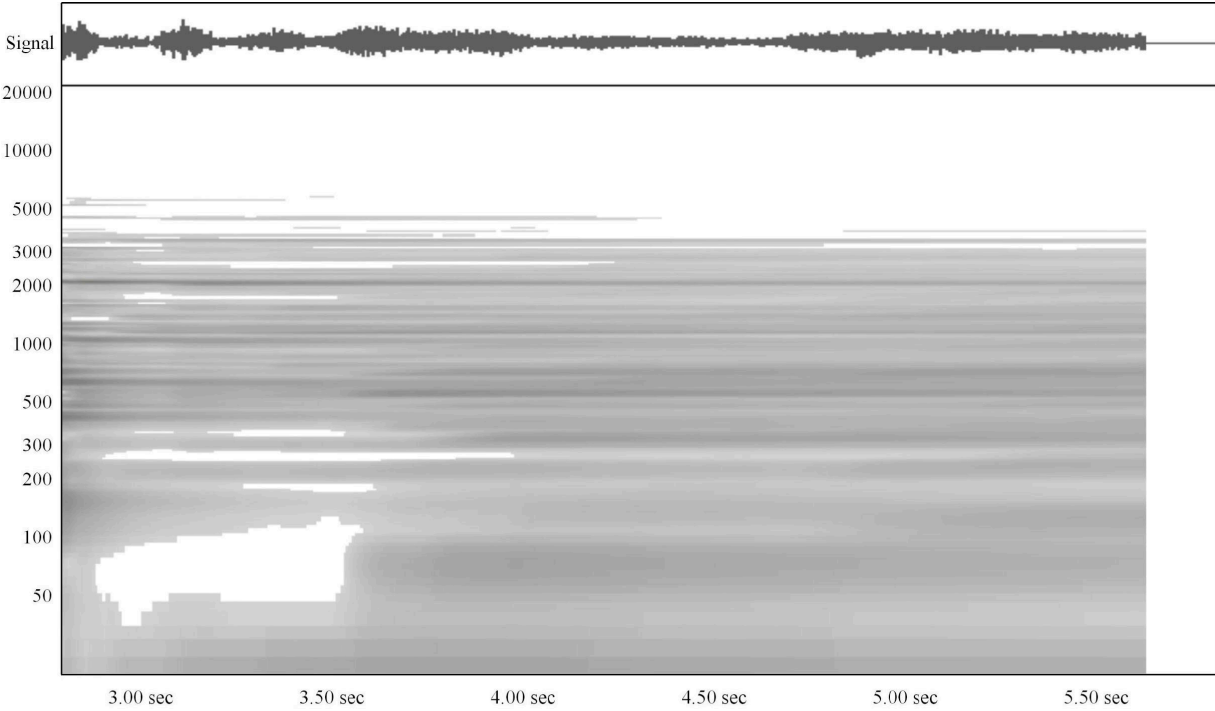
PRODROMOS 3

PRODROMOS 4
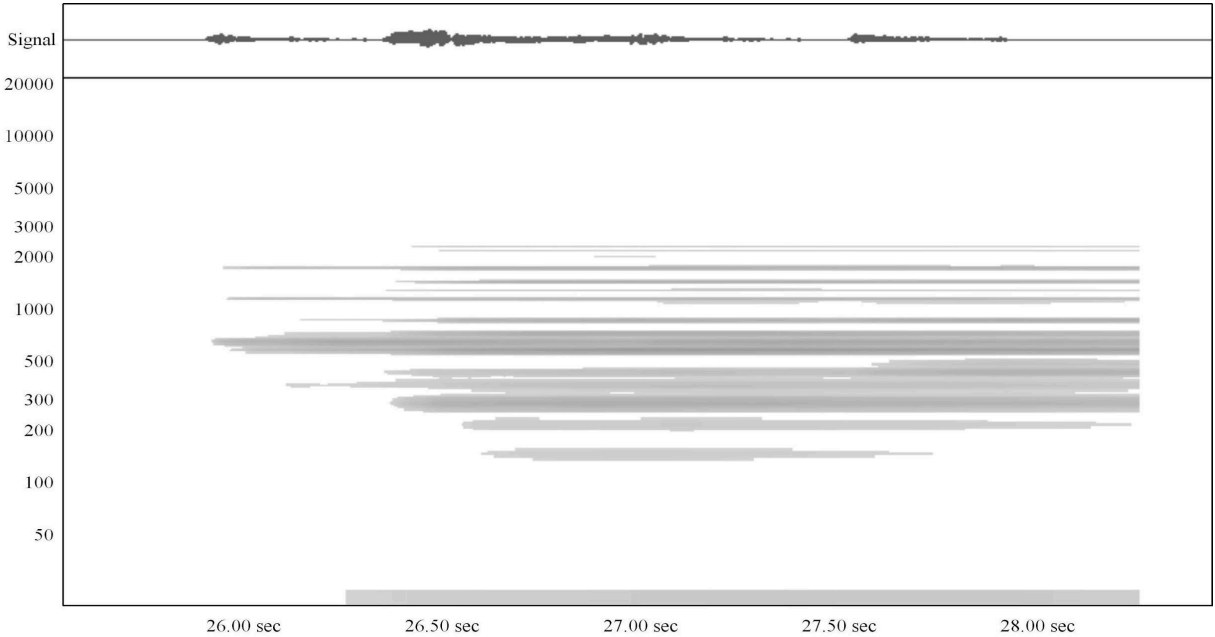
FARSALA 1

TOPOGRAPHIC IMAGES:

KASTRO (35P)

PANAGIA (25c)

Eoliaki Opsi: Computer Generated Compositions Using Environmental Data
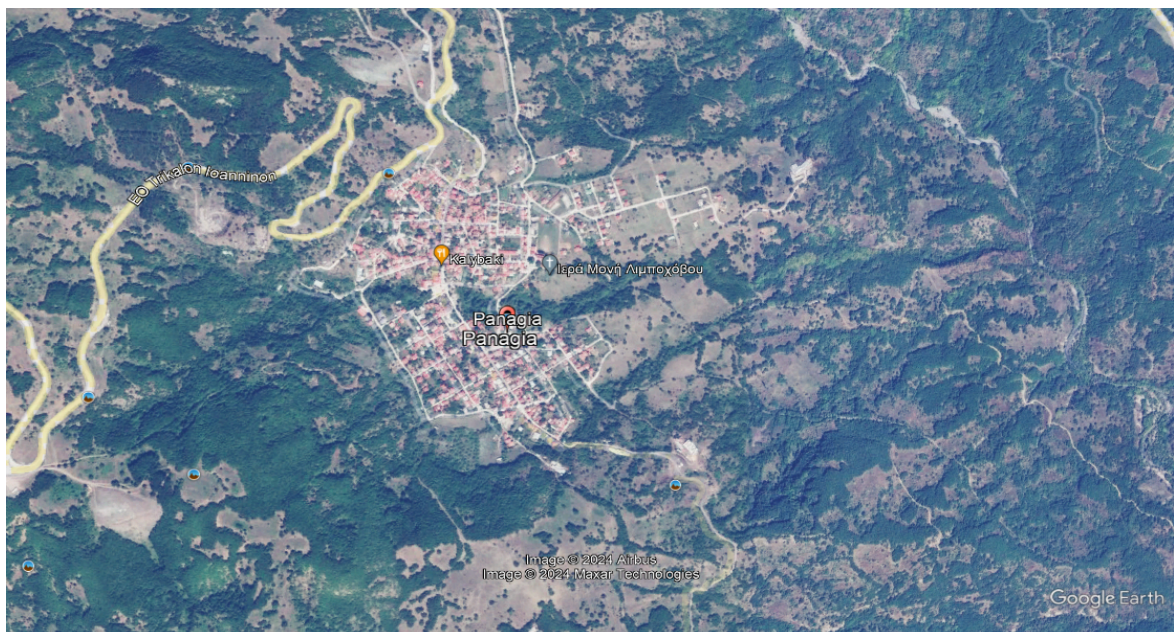
PRODROMOS (15f)

Ag.IOANNIS (7q)

FARSALA (13i)

From Ancient to Modern Cinderella Tales: Analysing Stereotypical Attributes in Terms of Looks of the Female Characters

Dr. Dilshadbanu Mohammadhanif Quraishi[δ]

ABSTRACT

Any literature read and enjoyed by children falls under the category of children's literature. Fairy tale happens to be one such genre which is read and enjoyed by children. Therefore, it falls under the category of childre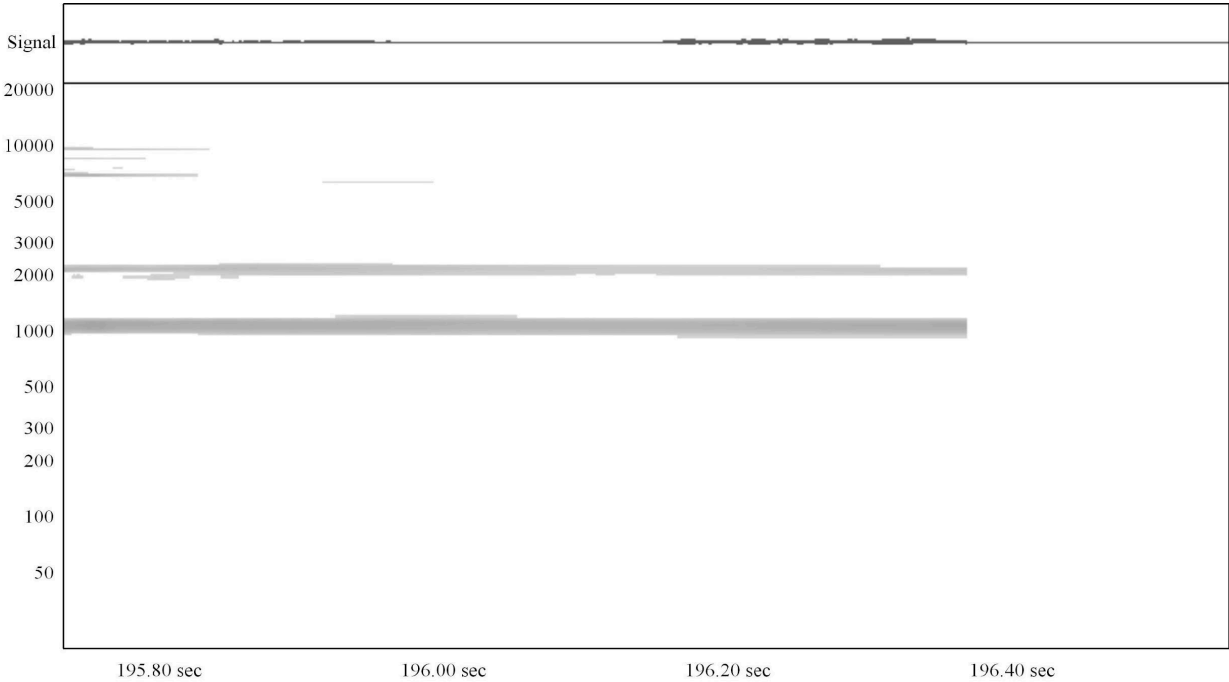n's literature. However, Children's literature, apart from being the source of entertainment and enjoyment for children, may also work indirectly to form and influence children's thought process and their attitudes towards life. As a result, certain notions could be passed on from one generation to another through such fairy tales. The fixed or over-generalised ideas which passed from one generation to another in society may be termed stereotypes. How these stereotypes are presented and how they are reinforced again and again in such fairy tales has been explored through the comparison of various Cinderella versions, which include Charles Perrault's Cinderilla, or The Little Glass Slipper, Jacob and Wilhelm Grimm's Aschenputtel/ Cinderella and Gail Carson Levine's Ella Enchanted. This paper will explore whether stereotypes are presented and reinforced through the comparative reading of Brother Grimm's Cinderella, Perrault's Cinderilla and Gail Carson Levine's Ella in terms of the physical attributes of some of the positive and negative female characters. This paper is an attempt to examine whether the conventional characteristics in terms of the appearance of the female characters are followed in all of these versions or not. Moreover, when Levine's Ella may be put under the category of a modern Cinderella tale by some critics, it would be interesting to examine whether the female characters of this modern tale are presented conventionally in terms of their looks or differ from the appearance of female characters presented in ancient versions of the Cinderella tale.

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*Author **δ**:* – Assistant Professor at R.P. Arts, K.B. Commerce & B.C.J. Science College, Khambhat, Gujarat, India

I. INTRODUCTION

Children's literature may be defined as the literature which is written for children or the literature read and enjoyed by children or may be written by children. This might mean that this could be the sort of literature whose targeted audience could be children. To understand children's literature, there may be the need to understand the concept of childhood as per the view of some of the critics such as Fadiman, Aristotle and Alterman. According to Fadiman, Child was just viewed as a 'Pre-adult' or 'Miniature adult' (Fadiman). This idea is associated with Alterman's view of childhood where children were seen as 'miniature adults' (Alterman). From these views, it could be perceived that Children's literature may not be a distinctive category at a time when children were not considered different entities, rather they were viewed as mini-adults. This idea is linked with Rivera's which states that "before the sixteenth century, there were no books for children" (Rivera). It may simply mean no division of literature for adults and literature for children. That means no emergence of the proper definition of children's literature at the time when it was not considered a separate category of literature. Thus, the concept of childhood before the Renaissance or the classical children's literature did not provide a clear definition of children's literature because it blurred the line between the adults and the children by considering children as 'miniature adults'. Thus, there is an ambiguity aroused in defining children's literature. John Rowe Townsend states that a children's book is something that appears on the children's list by its publisher (Susina). Mourad has quoted Bikaee in his Master thesis to define children's literature which is primarily focused on "their growing years and is suitable for their stage of mental and psychological development…. (Mourad). Furthermore, Roger Sale has defined children's literature in the following words: "Children's literature is the only literary category that defines an audience rather than a subject or an author" (Mourad). This is because "in children's literature, the 'reader' is a much more obviously immanent character" (Hunt 4). Thus, it could be viewed from these definitions presented here that children's literature is majorly based on its audience i.e., children. Here, when Mourad views children's literature considering it appropriate for their mental and psychological growth, then it is mandatory to see if this literature fulfils this objective or not.

Some other critics advocate the idea that children's literature plays a vital role in children's mental and psychological growth (Martens) (Pat Heine). Heine opines that books play a vital role in the thought process of children and cites Cooper-Mullin and Coye who state: ".… books of our childhood are such an important part of our journey" to form one's future (Pat Heine). Martens in his Bachelor's degree thesis quoted Keyes and McGillicuddy who assert that "children's literature has the ability to transform, indoctrinate and empower its readers" (Martens 4). Further Martens continues to advocate a similar idea when he states that Children's literature is dominated by the ideology of its author. Furthermore, Martens presents that society's ideology may also be represented by children's literature (Martens 4). Julie Kolowsky has also emphasized the effect of children's literature when it reproduces "thinking patterns by showing particular representations of gender, race, class, or sexuality" (Koslowsky 7). From these viewpoints, it may be understood that certain ideas may be imposed on children through the literature they read or listen to. This may be because children do not have direct access or control over what they are exposed to read or listen to as a piece of literature. It means that children may develop their mental and psychological state by the views imposed on them by the writer or maybe by the society that the writer is trying to portray in the book. This may simply mean that ideology may be created or instilled in children with the help of literature. If these ideas are instilled in children with the help of literature, then there may be the possibility that sometimes stereotypical ideas might be instilled or imposed in children. If one talks about children's literature which includes picture books, chapter books, stories, rhymes, novels, poetry, fairy tales and so on. This research paper focuses on the study of stereotypes presented in a fairy tale, particularly Cinderella's tale. Undoubtedly, Cinderella's tale has numerous versions but this paper will focus on Charles Perrault's Cinderilla; or, The Little Glass Slipper, Jacob and Wilhelm Grimms' Aschenputtel/Cinderella and Gail Carson Levine's Ella Enchanted (Perrault) (Grimm) (Levine). The focus of this study would be to find if there are conventional or stereotypical ideas presented in terms of the appearance of female characters in these versions or not by comparing and contrasting the physical attributes presented in these versions. To focus on the latest version i.e., Ella Enchanted which is a

novel, it is mandatory to take into consideration Gail Carson Levine's Ella Enchanted as some critics view it as modern Cinderella or Anti-Cinderella. (Berlatsky) (Carbone) (Ella Enchanted: Female Independence in Literature).

However, there are numerous versions of Cinderella's tale, the storyline remains more or less the same. In particular, Cinderella is a story of a beautiful girl's exploitation by her stepmother and step-sisters after the death of her biological mother. Meanwhile, there was an arrangement of three balls either organised by a prince or by his father to choose the bride for the prince. Step-sisters made arrangement to attend the party but Cinderella was prevented from attending the party. Somehow Cinderella got assisted either by her fairy godmother or by birds/a tree/ other supernatural powers to reach the party with magnificent dresses and jewellery. Prince took interest in her and danced with her ignoring other ladies in the party. He also tried to reveal where this maiden belonged to. On the third day of the ball, Cinderella loses one of her shoes while leaving the party hastily to conceal her identity. Meanwhile, the prince declared to marry the lady whom the shoe would fit in. Everyone tried including Cinderella's step-sisters but they failed to fit in that shoe. Ultimately, Cinderella was called to try it and the shoe would perfectly fit in her foot. Then, she married the prince and got free from the torture of her stepmother and step-sisters.

Ella Enchanted is the story of Ella of Frell, who was cursed at birth by the fairy Lucinda with the so-called gift of obedience, making her follow any command given to her. After her mother passed away, Ella met Prince Char and was later sent to a finishing school with her unkind stepsisters, Hattie and Olive. Hoping to break the curse, Ella embarked on a journey where she encountered ogres, giants, and Lucinda—who refused to remove the gift of obedience. When her father attempted to marry her off for financial gain, her fairy godmother Mandy intervened and prevented Ella. Later, Ella secretly attended a royal ball, where she reconnected with Prince Char in disguise. After her identity was revealed, Char proposed to her. After making some inherent struggle to refuse to follow the direct command received from Char to marry him, Ella ultimately defied her curse for the first time and regained control of her life. After getting free from the curse of obedience, Ella herself proposed Char

to marry on her terms and lived a happy life as the Court Linguist and helper in the royal kitchen.

After discussing the storyline of some of the Cinderella tales, this study would throw light on the physical attributes of the female characters in the light of stereotypes i.e., whether the female characters in some of these Cinderella tales follow any conventional pattern in terms of their look. This research paper will also focus on whether the female characters adhere to the beauty constructs. Moreover, this research will try to find whether there is any difference between female characters portrayed in positive roles and female characters occupied with negative roles. This study would also focus on whether these female characters overthrow the stereotypical pattern of looks or not by comparing and contrasting the physical features of these females presented in different Cinderella versions.

To analyse Charles Perrault's Cinderilla; or, The Little Glass Slipper, it is to be noted that the beauty of Cinderilla is mentioned many times throughout the story. For instance, the jealousy and hatred for Cinderilla aroused in her step-mother when she found Cinderilla more beautiful than her daughters which is indicated by these lines: "She could not bear the good qualities of this pretty girl, and the less because they made her daughters appear the more odious" (Perrault 79). Despite this, Cinderilla was presented as astonishingly beautiful even in her rags whereas her step-sisters did not look that much beautiful despite having worn magnificent dresses. This is indicated in these lines: "Cinderilla, notwithstanding her mean apparel, was a hundred times handsomer than her sisters…." (Perrault 80). Here two things are to be noted Cinderilla having a positive role is presented with the feminine beauty constructs. Secondly, the step-sisters having negative roles are portrayed as ugly. This idea is further accentuated when the step-sisters did not eat anything for almost two days because they wanted to have thin figures for the party. To look thin and beautiful, they have broken many laces of the dresses as well as tied up laces too tightly (Perrault 81). This is an indication of having bulky bodies. This means the stereotypical idea is reinforced that having a thin and slender figure is the tag of the heroine of the story. The women in negative roles should be ugly. This is what is presented here in Charles Perrault's Cinderilla. The other striking thing is to be noted that whether it could be Cinderilla or her step-sisters, they all run

behind beauty constructs. This is to be noted when Cinderilla demanded magnificent dresses from her fairy godmother to look beautiful at the party and be liked by the prince. Rather, she looked more beautiful (this is the prince's opinion presented in this tale) in her sober dress when she appeared before the prince after fitting the shoe. Ultimately, in Perrault's Cinderilla/ The Little Glass Slipper, positive characters have beautiful features whereas negative characters are devoid of beauty. Moreover, whether it could be female characters in positive or negative roles, they all surrender themselves to attain beautiful features to be chosen and valued by the prince.

To discuss the physical features of the second version i.e., Jacob and Wilhelm Grimm's Cinderella, it is observed that beauty is presented by Cinderella's character because she has a positive role to play. This is emphasised whenever Cinderella attended the party and everybody was dumbfounded to see her beauty. On the other hand, her step-sisters were conventionally portrayed as ugly and adhere to the norm that females in negative roles should be ugly. However, there is a difference in this notion presented here. To be precise, step-sisters in this version were initially portrayed as beautiful which is indicated in the following words: "They were beautiful, with fair faces, but evil and dark hearts" (Grimm). Ultimately, they end up being devoid of beauty by representing large feet. This occurs in the scene of the shoe trial. The older sister could not wear the shoe due to her large toe. On the other hand, the younger did not fit in the shoe because of her large heel. Contrastingly, Cinderella's tiny feet may be the emblem of beauty. It is observed that Grimm's Cinderella version follows the convention that positive female characters attain beauty whereas negative female characters are devoid of it. Moreover, whether females have positive or negative roles, they all try to achieve beautiful traits. This is done by demanding fine dresses to attend a party in the case of Cinderella. Furthermore, efforts to obtain beauty made by the step-sisters were shown in their preparation for the ball when they say: "Comb our hair for us. Brush our shoes and fasten our buckles..." (Grimm).

The third version of Cinderella by Gail Carson Levine is a novel called Ella Enchanted published in 1997 and soon it was awarded one of the most prestigious Newbery Awards in 1998 (Ella Enchanted by Gail Carson Levine). The book is comprised of twenty-nine chapters with an epilogue. To focus on the study of the physical characteristics of the female characters of this novel, the first female character would be taken into consideration is the heroine of the novel Ella. Like the conventional heroine, Ella is bound to be beautiful for being a positive character in the novel. Her beauty is reflected in her tiny feet and skinny figure. The same thing applies to the mother of Ella Lady Eleanor. Mandy (a cook and fairy godmother of Ella) explains Ella the reason behind her tiny feet. Mandy informs that Ella and Lady Eleanor have a drop of fairy blood which causes their feet to remain tiny. However, Mandy is an exception in that she is in a positive role as she tries to comfort Ella and also makes efforts to help Ella free from the gift of obedience. Mandy is described as ugly when there is a description of Mandy's double chin with grey frizzy hair (Levine 28).

To throw the light on the negative characters in the novel Ella Enchanted, it is found that the stepmother and step-sister fall under the trope of being ugly characters for playing negative roles in the novel. They might be the unfortunate characters who yearn for thin bodies but fail to attain them. The stepmother-Dame Olga appeared at the funeral of Ella's mother. She was described as "a tall, plump lady…Her face was pasty white with twin spots of rouge on the cheeks" (Levine 22). This is indicative of the fact that she wore lots of make-up to obtain beauty. Like the stepmother, step-sisters also failed to fit into the constructs of beautiful ladies. For instance, when Ella met them for the first time, she thought that Hattie looked like a "rabbit" (Levine 25). "A fat one… and Olive's face was as blank as a peeled potato" (Levine 25). The words 'rabbit', 'fat' and 'potato' suffice to emphasise the idea that the step-sisters Hattie and Olive are deprived of beautiful physical features. Thus, females in negative roles in the novel Ella Enchanted conform to the notion that they are not portrayed beautifully because they are associated with wickedness.

However, the characters of fairies are portrayed contrastingly whether they played positive or negative roles in the novel Ella Enchanted. The fairy Mandy who was a cook as well as Ella's godmother has broken the norm of being beautiful just because of being a fairy. Ella mentioned: "Fairies were thin and young and beautiful . . . whoever heard of a fairy with frizzy grey hair and two chins?" (Levine 28). The same was

the case with the evil fairy Lucinda who had a habit of giving bizarre gifts to the people without considering their consequences. Initially, Lucinda is presented with the fine qualities of a fairy i.e., being beautiful when she possesses the features such as "tall and graceful, with huge eyes, skin as unblemished as satin, lips as red as pomegranate seeds, and cheeks the colour of early sunset" (Levine 126). But at the end of the novel, when she tries some of her gifts by herself and realises their dangerous consequences, she appears in her real form in front of Mandy and Ella. Ella saw Lucinda in her real form unshielded by magic when Ella thought: "This fairy was stooped with age… wrinkled with a mole next to her nose" (Levine 201). Thus, it has been observed that fairies whether good or bad presented in the novel Ella Enchanted do not follow the stereotypical pattern of being beautiful. Both Mandy and Lucinda have shown the realistic aspects in terms of their appearance. One has presented the idea that fairies might have double chins and frizzy hair and the other has shown the fact that fairies also get old. Thus, they break the stereotypical canon of fairies being beautiful.

The other striking feature is observed in terms of Ella's character that despite being beautiful she does not value beauty over her agency. The other Cinderellas presented in the previous versions made great efforts to fit the shoe rather Ella is the heroine who has broken the glass slipper in the novel while dancing with Prince Char. When Cinderella presented in Grimms' and Charles Perrault's version demands magnificent clothes to become the epitome of beauty, Ella overthrows conventional constructs of beautiful ladies. For instance, when Ella wears a gown for the funeral of her mother, she looks into the mirror and comments that she looks like "a grasshopper —a skinny, spiky grasshopper with a human head and straight hair" (Levine 21). Instead of praising her thin body, she ridicules it by comparing herself to 'a grasshopper'. Thus, she does not value beauty as Cinderella in previous versions did by making demands of elegant dresses from their fairy godmother or other supernatural powers. Not only that but Ella has also criticised her tiny feet. When Ella knew about having a drop of fairy blood which has caused her feet to remain tiny throughout her life, she questioned Mandy whether she would be able to balance with tiny feet. As being modern Cinderella, Ella has thrown the conventional aspects of giving due importance to her beauty unlike Cinderella did in previous versions.

II. CONCLUSION

In conclusion, it is observed that Cinderella in all these mentioned versions (Grimms', Perrault's and Levine's) have been presented beautifully. There is only one positive character i.e., Ella who does not conform to giving importance to beauty despite being beautiful. The other thing to be noted is that whether in ancient Cinderella versions or modern ones, evil female characters follow the stereotype of being ugly just because they are bad characters. Lastly, fairies in Levine's Cinderella version have overthrown the concept of beauty by showing realistic features such as old age or a double chin with grey and frizzy hair. Therefore, Brother Grimms' and Charles Perrault's positive and negative characters might be portrayed conventionally in terms of their appearance. Whereas, Levine's positive and negative characters might have shown variety by questioning the conventional pattern of appearance and overthrowing them. However, unfortunately, Levine's negative characters particularly the stepmother and step-sisters could not come out from the stereotypical look of negative characters. Hence, Brother Grimm's and Charles Perrault's Cinderella versions might have stereotypically presented good versus bad females aligned with beautiful versus ugly. On the other hand, modern Cinderella i.e., Levine's Ella has stood somewhat in the grey area between beauty being associated with good and evil being linked with ugliness.

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Gender Performance, Gender Norms and Dance

Dr. Xiaoyu Yang[δ]

ABSTRACT

This study examines dance as a cultural medium for constructing and challenging gender norms through embodied performance. Drawing on Judith Butler's theory of gender performativity and Richard Schechner's performance studies framework, it analyzes how repetitive choreographic practices and bodily stylization reinforce or subvert patriarchal and heteronormative ideologies across cultures.

Classical ballet and Chinese classical dance exemplify institutionalized gender systems. In ballet, male-dominated partnering lifts, female-coded pointe technique, and heteronormative pas de deux structures (e.g., Swan Lake's passive female protagonist) perpetuate hierarchical gender roles. Similarly, Chinese classical dance uses gendered hand gestures—such as the "orchid palm" (feminine) and "sword finger" (masculine)—to encode cultural stereotypes of "feminine grace" and "masculine strength," reproducing these norms through generational transmission.

Japanese theater traditions reveal contradictions in gender representation. Kabuki's onnagata (male actors portraying femininity) and Takarazuka Revue's otokoyaku (female performers enacting masculinity) deploy stylized gestures to construct idealized archetypes. However, these performances ultimately uphold patriarchal logic: male choreographers dictate feminine submission, while female-rendered masculinity caters to heteronormative spectatorship. Despite surface-level gender-bending, they reinforce compulsory heterosexuality. Contemporary experimental dance offers transformative potential. Contact improvisation and queer choreographies (e.g., Steve Paxton's works) destabilize gender binaries through egalitarian partnering and non-normative embodiment. LGBTQ+ artists further challenge essentialist gender notions by incorporating transgressive corporeality into performance. These innovations echo Butler's claim that "gender is an enacted cultural fiction," positioning the dancing body as a site of political resistance.

This research highlights dance's dual role as both a transmitter of oppressive norms and a laboratory for cultural reinvention. From classical codification to avant-garde subversion, it documents evolving societal attitudes toward gender. Future studies should explore intersectional dimensions in global dance practices, particularly in the digital age. By emphasizing dance's capacity for both normalization and subversion, this study enriches critical discourses on embodiment, identity, and social justice.

Gender Performance, Gender Norms and Dance

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Author **δ**: Beijing Sports University, Beijing, China

I. INTRODUCTION

As Richard Schechner suggests in Performance Studies, gender is essentially a performance. In daily life, gender is a performance based on one's life experience and gender roles assigned by accepted social norms. The concept of gender first makes sense when being performed. Similarly, performance on stage, including dances, is a demonstration of gender and sexuality. As Judith Butler suggests in Gender Trouble, 'gender is the repeated stylization of the body, a set of repeated acts within a highly rigid regulatory frame' (p.33). Furthermore, the stylization of gender performance in dance also reflects the consistency or transformation in people's perspective on gender norms. This essay will analyze the gender representations in different dances with specific examples of choreographers or choreographies. Some of them are conforming while some are subversive to the prevailing gender norms characteristic of patriarchy and heterosexuality, but all of them speak about the stylization of body and repeated acts in dance that give birth to gender performativity and conceptualize 'gender'.

II. GENDER PERFORMANCE IN DANCE THAT CONFORMS TO CONVENTIONAL GENDER NORMS

According to Butler, 'the body is always an embodying of possibilities both conditioned and circumscribed by historical convention. In other words, the body is a historical situation, as [Simone de Beauvoir] has claimed, and is a manner of doing, dramatizing, and reproducing a historical situation.' Among all the possibilities that the body demonstrates a historical situation, the dance performance, such as classical ballet, where gender representations strictly obey the prevailing gender norms is absolutely the mainstream. Ever since the advent of classical ballet in the 15th century in Italy, the society that we live in has always been based on heterosexual marriage and patriarchy, which constantly signify the gender binary between men and women, and by extension, the domineering role of men. Elegant and formal, classical ballet never fails to keep consistent with, and even epitomize such gender norms. For instance, although both female and male dancers are required to be physically strong to perform classical ballet, a male dancer always has to be even taller and stronger than his female partner so as to demonstrate his supporting role by picking up or holding his partner. We can see stereotypical aesthetics with gender bias that tends to define male as strong and female as weak in classical ballet. Furthermore, the dance does not only exemplify the superiority of male dancers in terms of physical strength, but also serve as the site where the male dancers exert absolute control over female dancers and thus objectify them, as Susan Leigh Foster comments on the ballet pas de deux, 'He and she do not participate equally in the their choreographic coming together. She and he do not carry equal valence …he embodies the forces that pursue, glide and manipulate it…[so that her role] traffics women to sustain various forms of male hegemony (pp.1-3).'

When many contemporary dance genres have started to challenge the conventional gender norms nowadays, classical ballet remains the opposite. Now let's get down to more details and discuss normative gender representations in today's classical ballet from multiple aspects, including the plot design, choreography and choreographers. To start with, the plot of today's 'Swan Lake' puts great emphasis on the sentimental and miserable feature of the swan-queen Odette who gives her heart to Prince Siegfried even though 'he promptly proves himself Prince Wrong by plighting his troth to her wicked lookalike Odile' (Macaulay, 2010). Furthermore, rather than explaining more on whether the heroine takes the agency to love and returns the prince's love, the story is more focused on her hesitation and complicated feelings about 'committing herself to accepting his support' (Macaulay, 2010). The story ignores the female agency to choose and love someone, making their relationship look like a pseudo-romance contract

where the female role only needs the male role's love to release her from the swan form.

Secondly, in terms of choreography, classical ballet is among the dances which insist on biased gender performances, even making the distinctions between female and male dance more conspicuous than before. For example, the practice of point work in classical ballet today is more representative of femininity than in the 19th century, whereas male dancers only use it for an 'eccentric or animal effect' (Macaulay, 2010). The point work of women also tends to be associated with the dichotomy of gender, in that it represents a 'tragic dimension', which thoroughly differentiates the female from the male and make the female the tragic Other. Furthermore, the man has to support the woman in pirouettes, but not vice versa; neither is the partnership in pirouettes allowed between same-sex dancers. While the term pas de deux originally means 'steps for two', dancers are more inclined to use it to refer to the men's task of supporting women, due to the remarkable increase of situations where men lift women in the ballet today.

Thirdly, the fact that choreographers behind classical ballet are mainly comprised of men is also problematic, making the gender binary and patriarchal system even more evident in this dance. The art of ballet largely relies on the performance of the ballerina, whose techniques and theories are mainly passed down by female choreographers. However, a ballerina's career only lasts for no more than twenty years makes women, and to make things even worse, the authorities in the industry have been deliberately excluding female choreographers. It is a sad fact that when the major bodies performing on the stage are female, the minds that direct their movements are mostly male. Though performance and individual dancers do not live forever, the knowledge and sparks in choreography can survive the time. Excluding female choreographers from classical ballet, in other words, is discriminating and neglecting the potential contribution that the female can make to the collective knowledge of ballet. It is particularly ironic that, female professionals still have to strive for an equal position as their male counterparts in a dance that is mainly expressed through female bodies, which in another sense, reinforces the impression of classical ballet as extremely patriarchal and exemplary of gender norms.

Similar to classical ballet, classical Chinese dance also demonstrates the gender norms that define femininity as soft and graceful, while masculinity as strong and powerful. Hand gestures in classical Chinese dance would be a great example of such, where orchid palms are only practiced by female dancers, while male dancers conduct sword fingers. Orchid palm, as suggested by its name, is a hand gesture that resembles the form of an orchid, where the middle finger and thumb are pressed close toward each other, while 'the other fingers edge in toward the middle finger laterally and on different planes to bring out different layers of the orchid's petals' (Wang, 2016). Since orchids, characteristic of beautiful blossoms and pleasant aroma, have long been considered as a symbol of elegance and feminine grace, the imitation of the flower using hand gesture represents the ultimate femininity of the dancer based on conventional gender norms. On the other hand, however, Sword finger, which is more often than not associated with martial arts and Kung Fu, is mainly practiced by male dancers. Sword fingers is a hand gesture where the index and middle fingers are pointed out together, while at the same time, the thumb is pressed towards ring finger and pinky, thus to imitate the form of a sword in Chinese martial arts (Wang, 2016). It is natural to relate sword fingers more with masculinity than femininity simply because of the fact that martial arts is more engaged by men rather than women according to Chinese gender culture. Of course, in addition to hand gestures, classical Chinese dance resembles classical ballet in emphasizing the dominant or supportive power of men and the tragic position of women in both storyline and choreography. Since China has a long history of strict patriarchy and conventional gender norms, classical Chinese dance is as equally convincing as classical ballet being a stylization of biased gender roles between men and women.

III. DISRUPTION OF GENDER NORMS? GENDERING BENDING IN JAPANESE DANCE

As a country renowned for its strict gender hierarchy, it might be surprising that Japan has engendered some of the most impressive gender bending performances in the history of dance, among which stand the onnagata performance in Kabuki theater, and otokoyaku performance in Takarazuka Revue. Since Kabuki is an all-male theater while Takarazuka Revue is all-female, both

theaters, inevitably, have to assign a 'secondary gender' to some of the performers during the performance, which is opposite to their biological gender. For example, kabuki is famous for its onnagata, which refers to female-role specialists (who are male), while Takarazuka Revue has attracted hundreds of thousands of female fans with their handsome and charming otokoyaku (male roles) portrayed by women. Both dances feature high stylized dance to create the ideal women and men portrayed by actors of the opposite biological gender, which exemplifies the fact that gender performance does not necessarily need to align with the biological sex of the performer, as long as the 'set of repeated acts within a highly rigid regulatory frame' are carried out.

Kabuki was the first theater in Japan that defined 'the formal concept of androgyny (or gender bending)' (Robertson, 1992, p.423). with vivid demonstrations of its beauty during performances, in particular, onnagata dance. Besides the cross-dressing and exquisite make-up of onnagata actors, onnagata performance features the choreography where a dancer adopts and stylizes feminine movements and gestures, standing with the knees and back slightly bent to look smaller. The onnagata dancers speak in falsetto; their fingers kept together and they only walk with tiny steps in elegant and controlled manners. Furthermore, they keep their knees and toes pointed inward in order to create a perfect image of the ideal woman in the Japanese aesthetic. Therefore, onnagata is aimed to transcend real women and stylize the ideal women. Yoshizawa Ayame I, a top onnagata star of his time in early Edo and considered the founder of onnagata's art, first borrowed the Buddhist concept of henshin as his core theory for performing onnagata. Henshin stands for bodily transformation or metamorphosis in the most complete and comprehensive sense, including all levels of physical, mental, social, historical, and spiritual entity. Therefore, Ayame's theory of onnagata encourages male actors to transform into a woman instead of impersonating a given woman. For all the contributions that Ayame and his onnagata peers made to the performing arts marked by androgyny, their major objective of doing so, after all, was to please the entrenched patriarchy of the Edo society. An ideal onnagata in Kabuki, according to Ayame, 'was not an androgyne but an embodiment of patriarchally inscribed, state-regulated female gender' (ibid., p.424), and

would set an ideal archetype for women offstage to emulate.

Similarly, otokoyaku dance performed by female dancers in Takarazuka highly stylizes the movement and gestures of men in order to set a model of ideal men. According to Jennifer Robertson, most of the training of otokoyaku dance focuses on 'learning kata, which refers collectively to technologies of gender, including form, posture, sign, code, gesture, and choreography' (Robertson, 2008, p.12). An otokoyaku dancer must walk across the stage forthrightly, with 'her arms held stiffly away from her body, her fingers curled around her thumbs to form a fist'. She adopts a set of bold and expansive hand gestures to show her masculinity. Also, she must keep her legs apart when standing when she stands still (ibid.) In fact, the otokoyaku dancers are highly encouraged to imitate the behavior and movement of male celebrities with large female fanbase, in order to approach the ideal image of a perfect man. The femininity demonstrated by female roles, on the other hand, is used as a foil for the masculinity of the male roles. As opposed to the otokoyaku, a female role need to keep her elbows pinned against her side to show the constraint freedom required for her femininity.

Although exemplary of gender bending performances which seemingly challenge conventional gender norms, neither onnagata dance in kabuki or otokoyaku dance in Takarazuka is subversive to the domineering patriarchy in Japanese society. In fact, while providing a potential platform for non-normative sexualities during the performance, both dances even reinforce the prevailing gender norms in Japan. The reason is quite straightforward: exactly like the choreography team in classical ballet, both the production teams of Kabuki and Takarazuka are dominated by male, and therefore, both dances represent the male-oriented archetypes of female. Needless to say, Kabuki creates the ideal image of women who follow the commands of men, while the ideal image of men portrayed in Takarazuka also serves to elevate the image of men in order to attract female fans, both of which place male roles at a higher position compared with the female. Finally, since the 'gender-bending performance' in Kabuki and Takarazuka only deals with stories of heterosexual relationships, but never homosexual ones, we can hardly call the dances 'subversive' to the normative gender codes based on heterosexuality.

Gender Performance, Gender Norms and Dance

IV. REVOLUTIONARY CONTEMPORARY DANCES THAT DISRUPT GENDER NORMS

In Gender Trouble, Judith Butler 'emphasized the agency of the body in the construction of gender and, by extension, of other facets of social identity' (Cohen, p.485). That is to say, the body is the primary site of 'gender trouble', where the social norms of gender not only get reflected, but also potentially get disrupted and remade. In the last section, we have seen that the practice of cross-dressing and non-normative gender performance in Kabuki and Takarazuka are still subject to heterosexual patriarchy and not demonstrating any motivation to revolutionize gender representations in dance to truly 'disrupt' the social gender construction. However, the 21st century has witnessed a great number of inspired modern dances and dancers attempting to bravely challenge the long-established gender norms based on heterosexuality and patriarchy.

As the definition of masculinity and femininity has grown more fluid recently, various forms of androgyny have been accepted in the art and entertainment industry, and equal rights between genders have made remarkable progress. Contemporary dancers are among those who constantly make efforts to demonstrate the equity of both gender dancers and issue of homosexuality through performance, and raise the public concern to eventually disrupt the gender norms, using stylized body representations. For example, some dancers have enabled the 'switched roles and equal roles between female and male dancers' (Contact improv, 2015), which deliberately dissociate male dancers with a strong image and female with a weak image, as opposed to before. In these dances, audiences will be able to see choreography that symbolizes equal strength of both genders. For example, in the dance 'contact improvisation' recently created by choreographer Steve Paxton, both the male and female actors have to rely and trust each other equally in order for the dance to work out smoothly. 'Contact improvisation' involves leaning one's weight on the other person reciprocally. The set of repeated acts (dance moves) in this dance does not only translate equal strength of both genders into patterned, aesthetical physical representations, but also shows how people's definition of masculinity and femininity has evolved recently. Furthermore, an increasing number of homosexual and transgender dancers have stood up for their dignity and rights, by involving in the composition of dances that address stories of LGBT, and challenging the gender norms onstage and off.

V. CONCLUSION

Through the repeated stylization of the body, gender is performed and conceptualized in dance. As shown in the examples in this essay, although gender representations take various forms in different dance genres during different periods of time, each dance reflect the ideal of gender roles in the perspective of a specific group of people. With the evolution of the society, one should expect a greater variety of gender performance in dance which embraces inclusivity and constantly shapes the current gender norms.

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