

MAR THOMA COLLEGE FOR WOMEN PERUMBAVOOR

3.3.2

Number of books and chapters in edited volumes/books published and papers published in national/international conference proceedings per teacher during the period 2017-2022



CRITERION3

RESEARCH, INNOVATIONS AND EXTENSION

2017-2022

DETAILS OF PUBLICATIONS IN BOOKS AND PROCEEDINGS BY FACULTY 2017-2022



MAR THOMA COLLEGE FOR WOMEN, PERUMBAVOOR

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DECLARATION

This is to certify that the following books and chapters in edited volumes or books published and papers published in national or international conference proceedings have been published by the faculty of our college during the last five years. This document contains the details of books, chapters, and paper proceedings during 2017–2022.



Dr. SUJO MARY VARGHESE Principal-in-charge Mar Thoma College For Women Perumbayoor - 583 542

Year	2022	2021	2020	2019	2018	2017
No: of books/chapters /paper proceedings	1	5	2	2	3	2

Sl. No:	Title of the book / chapters published	Title of the paper	Year
1	Carbon nanotubes for nanoelectronics and microelectronic devices		2022
2	Quid est (post) veritas": decoding post-truth and (un) believability in the 21st century (in the post-truth era: literature and media)		2021
3	The application of reefs in shoreline protection – A book chapter in Handbook of Ecological and Ecosystem Engineering		2021
4	Tracing the Original Dwellers: Adivasis of Kannan Devan Hills		2021
5	The Scholastic 'Glass Bead Game': Comparative Literature as an Interdisciplinary Field of Knowledge		2021
6	Plantation Monuments: Remnants of the Bygone Era		2020
7	Mapping the Postcolonial Domestic in the Works of Vargas Llosa and M.Mukundan: Tales of the Threshold (Book)		2020
8	Harappan Graffiti from Dholavira, Vinod V, Human and Heritage: An archaeological Spectrum of Asiatic Countries Vol. II,Fesisitation volume of Prof. Ajith Kumar, Department of Archaeology, University of Kerala		2019
9	Dependence of morphology on optical and electrical properties of metal oxide nanostructure (Chapter 17 in Applied Chemistry and Chemical Engineering, Volume 4)		2018
10	Gossamer Reveries		2018
11	Munnar Paristhithi: CharithraVeekshanam (Malayalam)		2018
12	West Asian Ceramics at Vizhinjam. Rithvik G, Ajith Kumar, S.V. Rajesh, Vinod V and Abhayan G.S in	-	2017

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	Kailashnath Hethu (Essays in pre-history, proto history and historical Archaeology) Festschrift to K N Dikshit, ed. Ajith Kumar et al.	-	
13		Tracing the Lifeworld of a Tribe: The Muthuvan	2021
14		The Planter Raj and the Tamil labour : History of Land Scape Change in Kannan Devan Hills	2019
15	5	Conflict with the Game, Shikar and the "White Hunter"	2017



INDEX

SL.	TITLE OF THE BOOK / CHAPTERS/PAPER	VEAD	PAGE
NO:	PRESENTATIONS PUBLISHED	YEAR	NUMBER
1	Carbon nanotubes for nanoelectronics and microelectronic devices	2022	7
2	Quid est (post) veritas": decoding post-truth and (un) believability in the 21st century (in the post-truth era: literature and media)	2021	27
3	The application of reefs in shoreline protection – A book chapter in Handbook of Ecological and Ecosystem Engineering	2021	34
4	Tracing the Original Dwellers: Adivasis of Kannan Devan Hills	2021	39
5	The Scholastic 'Glass Bead Game': Comparative Literature as an Interdisciplinary Field of Knowledge	2021	42
6	Plantation Monuments: Remnants of the Bygone Era	2020	51
7	Mapping the Postcolonial Domestic in the Works of Vargas Llosa and M.Mukundan: Tales of the Threshold (Book)	2020	55
8	Harappan Graffiti from Dholavira, Vinod V, Human and Heritage: An archaeological Spectrum of Asiatic Countries VoI. II,Fesisitation volume of Prof. Ajith Kumar, Department of Archaeology, University of Kerala	2019	60
9	Dependence of morphology on optical and electrical properties of metal oxide nanostructure (Chapter 17 in Applied Chemistry and Chemical Engineering, Volume 4)	2018	96
10	Gossamer Reveries	2018	104
11	Munnar Paristhithi: CharithraVeekshanam (Malayalam)	2018	117
12	West Asian Ceramics at Vizhinjam. Rithvik G, Ajith Kumar, S.V. Rajesh, Vinod V and Abhayan G.S in Kailashnath Hethu (Essays in pre-history, proto history and historical Archaeology) Festschrift to K N Dikshit, ed. Ajith Kumar et al.	2017	120
13	Tracing the Lifeworld of a Tribe: The Muthuvan	2021	130

14	The Planter Raj and the Tamil labour: History of Land Scape Change in Kannan Devan Hills	2019	133
15	Conflict with the Game, Shikar and the "White Hunter"	2017	136





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Home > Handbook of Carbon Nanotubes > Living reference work entry

Carbon Nanotubes for Nanoelectronics and Microelectronic Devices

<u>Anju K. Nair</u>, <u>Paulose Thomas</u>, <u>Kala M. S</u> & <u>Nandakumar</u> <u>Kalarikkal</u>

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Abstract

Nanomaterials have a variety of chemical, physical, mechanical, and electrical properties that are interesting and useful. Carbon nanotubes, out of all the nanomaterials utilized in nanoelectronics, are particularly essential due to their exceptional electrical properties. CNTs could be employed as a basic component in the development of new electronic devices. Depending on certain and discrete ("chiral") angles and tube radii, they can act as metals or semiconductors. Carbon nanotubes make it possible to create gadgets on nanometric scales. They can be employed in projects that include diodes, transistors, connecting elements, field emission sources, and other electrical and optoelectronic components. This chapter summarizes the current state of the art in this field, stressing the multiple carbon nanotube features and applications that take advantage of CNTs' unique aspect ratio, mechanical strength, as well as electrical and thermal conductivity.

Keywords

Carbon nanotubes Nanoelectronics

Nanometric scales

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Contents

Foreword	E
Acknowledgements	5
Introduction	/
 Fighting Conspiracy Ideologies: Learning from Pandemic Movies to Counter the Post-Factual Denis Newiak 	13 21
2. "Quid Est (Post) Veritas": Decoding Post-Truth and (Un) Believability in the 21 st Century Dr. Minu Susan Koshy	32
3. Beyond Misinformation: Post-truth and Nudge Theory Patrick Agbedejobi	47
 Signs and the Science of Truth: Language, Power and Performance in the Post-truth Era Cerin Babu 	54
 Surveillance, Media and Memory: The Absence of Truth and the Discourse of Gaming Manodip Chakraborty 	64
 The Descent of Dissent: Displaced Public Spheres of Fifth Estate in the Post-Truth Era Indu Peter 	71
7. Oxygen on Wheels and People in Quandary: A Study on Media Re-appropriation of Crisis and Cacophony of State Apparatus Roshima Uday and Dr. Abubakkar K.K.	a 80
 Cultural Obliteration of Menstrual Practices and Ripple Effects of the Post-Truth Era Pranjal Bhatt 	87
9. Post-Truth: Notion of the Real in the Digimodern Age Shemin K.	93

10 Was "Cyberia' Anticipated? An Ontological Survey of Burges' Select Visionary Works vis-a-vis Post (humanist+truth) Pataphysics Nipan Nath	
11. Post-truth and the COVID 19 Truce: Reflections on the Pandemic and Media Constructivism Dr. Mallika A. Nair	100
12. Post-Truth in Cults: Propaganda of Charles Manson and the Literary Works of Ayn Rand Josephine Mercy	108
13. Poetics of the 'Third Space': Exploring the Possibilities of a Fifth Dimension in John Green's The Fault in Our Stars Harry C. Joseph	
14. Performativity and Re-turn of the Author: Reading the Dynamics of "I" between the Star-Author, Fictional Charac and the Reading Public in Bhagatian Texts Dr. Kavitha Gopalakrishnan	
15. Identity Dynamics and Post-truth in Paul Verhaeghe's "What About Me?" Bornali Nath Dowerah	132
16. Political Advertisements in a Post-Truth World: An Analysis of the Kerala Legislative Election 2021	142
17. 'Hyperreality' and Social Media: 'Fake' Outrages 'Real' in the Post-truth Era Sinoj Antony and Dr. Jahr	150
Technology Namitha Nandan	160
19. Reel and the Real: Fathoming the Abyss between Fact and Fiction in Biopics/Spoof Greenu Ans Thomas	166
Jaya Singh	174
Plethora of Truths: A Postmodern Critique on Robert Coover's Briar Rose Dr. M. Samadhanam Emimal	181
	190

2

CONTENTS I 11

22. Tapering Boundaries: A Comparative Study on Post-Truth Integrals Ann Mary	199
23. Fake News: The Hype and the Truth Rabul Joshi	205
24. Factual Criticism in Post-truth India Shalabha Rachel Abraham	214
25. Post-truth Era and Marathi Dalit Cinema Dr. Rajendra Gholap	221
26. Stanislavsky's 'Realism' as a Relevant Mode of Artistic Production in Contemporary Post-Truth Art Philipp Sulim	229
27. The Trending Dynamics of Hegemonic Reverberations: A Post-Truth Authoritarian Rhetorical Analysis of Kamila Shamsie's <i>Home Fire</i>	235
Anusree A. Wilson Contributors	243
Index	25

CHAPTER 2

"Quid Est (Post) Veritas": Decoding Post-Truth and (Un) Believability in the 21st Century

Dr. Minu Susan Koshy

"Quid est veritas?" (King James Bible, 1769/2017, John 18:38) - Pilate asks this question to Jesus right before his crucifixion when Jesus says "I am witness to the truth" (King James Bible, 1769/2017, John 18:37) and without waiting for an answer, Pilate tells the people assembled that he sees no fault in Jesus. Jesting Pilate - "Quid est veritas?" - still remains one of the most debated parts in the Bible as Pilate's intention or even what exactly he meant by it, is not evident. What, after all, is Truth? Pilate's question points fundamentally to the concept of truth as relative or even to the postmodern possibility that 'truth' in itself does not exist. Truth as a philosophical concept has been at the centre of philosophical discourses for centuries, beginning with Plato and Aristotle. Today, in an era of increased democratisation of knowledge, easy access to data generation through online media and the possibility of easy transfer of information and news, often fake, across the globe, the question is not about 'Truth' but about 'Post-Truth': "Quid est post-veritas?" First used by Steve Tesich in 1992, 'post-truth' refers to situations wherein invoking emotions and appealing to personal sentiments shape public opinion, with objective facts being partially or totally disregarded. Posttruth has a definitive impact on public opinion, predominantly in the political context where populist governments have come to power in several countries including the US and India, by the power of post-veritas, pointing to the emergence and reinforcement of "post-truth politics - a political culture in which politics (public opinion and media narratives) hale

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have become almost entirely disconnected from policy (the substance of legislation)" (Roberts, 2010, para.8).

As Steve Fuller (2018) comments on Thomas Kuhn's account of science," 'truth' is no longer the arbiter of legitimate power but rather the mask of legitimacy that is worn by everyone in pursuit of power" (p. 4). In order to obtain power, the machinations of post-truth are utilised to their fullest possible extent by endowing events, objects and people with 'believability', irrespective of factual evidence to the contrary. Facts that discredit one's ideological/political positions are completely disregarded and often veiled from public view, while opinions and emotionally charged propaganda which support fallacious claims are given wide publicity. Media, especially social media, function as potent means of accomplishing this task by propagating fake news and misinformation, which are the most conspicuous sources of strength for the post-truth situation. Post-truth is unique in that there is "clear intent to influence others" and the enunciator believes that "the crowd's reaction actually does change the facts about a lie" (McIntyre, 2018, p. 6). My chapter attempts to explore post-truth as a mechanism through which those in power retain their ideological influence and how the media enables the propagation of fake news, misinformation and believability, thereby sustaining the post-truth economy and polity.

Media, Fake News and Misinformation in the Post-Truth Era

One of the keywords in any discussion of the post-truth situation is 'media'. How does the media promote post-truth and create a world of alt-facts? While it is easy to place the blame squarely on social media, it is irrefutable that even traditional media plays a prominent role in creating a post-truth reality by disseminating fake news and more significantly, biased information. That TV channels and newspapers are often funded by corporates and political parties is a well-known fact; as such the news and information broadcasted by these media outlets would naturally tilt in favour of the groups funding them. This would be clear even from a preliminary observation of news channels, newspapers and magazines. The case of Republic T V is an instance. A background check of the investors in the channel reveals that most of them have affiliations to the ruling party, directly or indirectly. This explains the adamant stance taken by its owner and journalist Arnab Goswami on issues such as the JNU Sedition Row of 2016 (Times Now, 2016). Panellists with alternate viewpoints were silenced and a biased view of events, which most often ('coincidentally') coincide with the state's

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Edited by

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Contents

List of Contributors *xvii* Preface *xxi*

- **1 Ecological Engineering and Ecosystem Services Theory and Practice** *1* Fábio Carvalho Nunes, Thaís de Marchi Soares, Lander de Jesus Alves, José Rodrigues de Souza Filho, Cláudia Cseko Nolasco de Carvalho, and Majeti Narasimha Vara Prasad
- 1.1 Introduction 1
- 1.2 Ecological Engineering: History and Definition *3*
- 1.3 Ecosystem Services: History, Concepts, and Dimensions 7
- 1.3.1 Sizing Ecosystem Services 10
- 1.3.2 Agriculture and Ecosystem Services 15
- 1.4 Final Considerations: Challenges for the Future 19 Notes 20 References 20
- **2 Ecological and Ecosystem Engineering for Economic-Environmental Revitalization** *25 Bruno Barbosa and Ana Luísa Fernando*
- 2.1 Introduction 25
- 2.2 Revitalization of Physical/Environmental Factors 27
- 2.2.1 Low Temperature 27
- 2.2.2 Limited Soil Drainage and Shallow Rooting Depth 28
- 2.2.3 Unfavorable Texture and Stoniness 29
- 2.2.4 Sloping Areas 30
- 2.2.5 Dryness 30
- 2.2.6 Waterlogging 31
- 2.3 Revitalization of Chemical Factors 32
- 2.3.1 Acidity 32
- 2.3.2 Heavy Metals and Organic Contaminants 33
- 2.3.3 Salinity and Sodicity 34
- 2.4 Economic Revitalization of Degraded Soil Ecosystems *35*
- 2.5 Conclusions 36 References 37

٧

- 15.2 *Phoomdi* Islands of Loktak 279
- 15.3 Ecosystem Degradation of Loktak 280
- 15.4 Ecosystem Services Provided by the *Phoomdi* Islands of Loktak 284
- 15.5 *Phoomdi* and Provisioning Services 284
- 15.6 *Phoomdi* as Reservoirs of Biodiversity 287
- 15.7 *Phoomdi* and Fisheries 288
- 15.8 *Phoomdi* and Cultural Services 288
- 15.9 *Phoomdi* and Regulating Services 289
- 15.10 *Phoomdi* and Supporting Services 289
- 15.11 Conclusion 290 Acknowledgments 291 References 291

16 The Application of Reefs in Shoreline Protection 295

Anu Joy and Anu Gopinath

- 16.1 General Introduction 295
- 16.2 Types of Coral Reefs 296
- 16.3 Global Distribution of Coral Reefs 296
- 16.4 Benefits of Coral Reefs 296
- 16.5 Threats to Coral Reefs 298
- 16.5.1 Global Threats 298
- 16.5.1.1 Ocean Acidification 299
- 16.5.1.2 Coral Bleaching 299
- 16.5.1.3 Cyclones 300
- 16.5.2 Local Threats 300
- 16.5.2.1 Over-Fishing and Destructive Fishing Methods 300
- 16.5.2.2 Coastal Development 300
- 16.5.2.3 Recreational Activities 300
- 16.5.2.4 Sedimentation 300
- 16.5.2.5 Coral Mining and Harvesting 300
- 16.5.2.6 Pollution 301
- 16.5.2.7 Invasive Species 301
- 16.6 Important Coral Reefs of the World 301
- 16.7 The Application of Reefs in Shoreline Protection 303
- 16.7.1 Coral Reefs 304
- 16.7.2 Oyster Reefs 307
- 16.7.3 Artificial Reefs 307
- 16.7.4 Coral Reef Restoration *308*
- 16.7.5 Oyster Reef Restoration 309
- 16.8 Conclusion 310
- References 310
- 17Mangroves, as Shore Engineers, Are Nature-Based Solutions
for Ensuring Coastal Protection 317

Ajanta Dey, J.R.B. Alfred, Biswajit Roy Chowdhury, and Udo Censkowsky

- 17.1 Introduction *317*
- 17.2 Sundarban: A Case Study 318
- 17.3 Restoration Models *319*
- 17.4 Methodology 320
- 17.5 Results and Analysis 326

The Application of Reefs in Shoreline Protection

Anu Joy¹ and Anu Gopinath²

16

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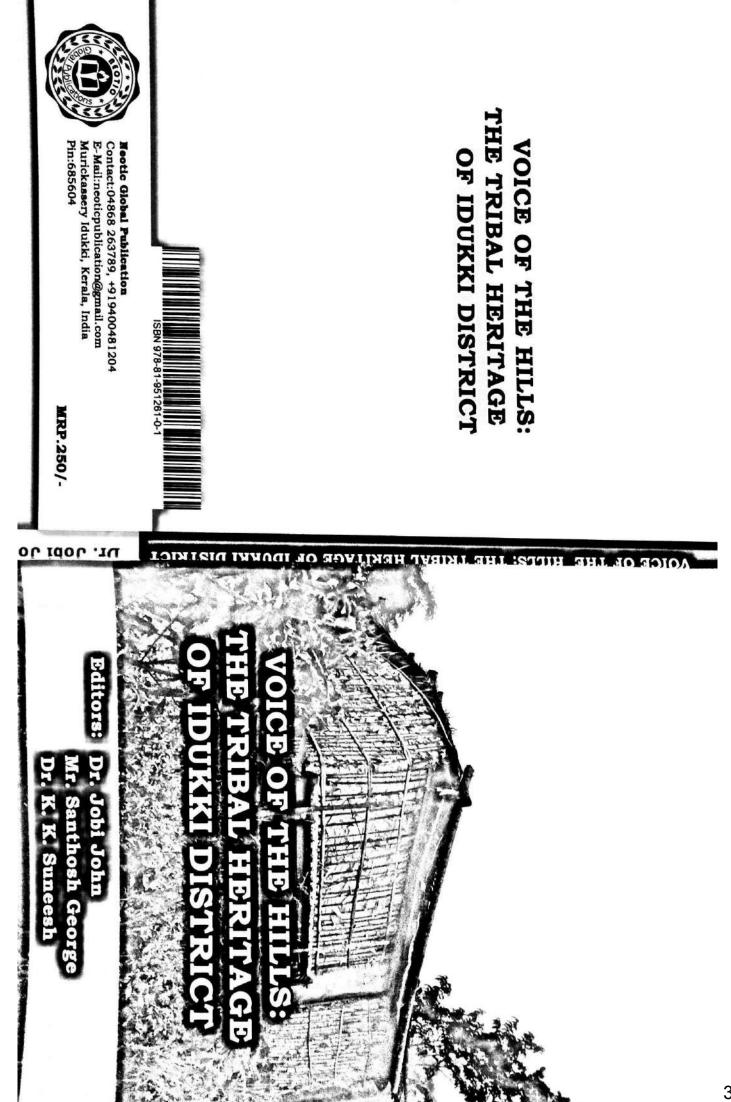
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16.1 General Introduction

Oceans cover approximately 71% of the Earth's surface, yet less than 0.1% of the world's ocean surface is covered by coral reefs [1]. Although corals first appeared over 400 million years ago, the corals that form reefs in tropical waters today appeared about 240 million years ago. Coral reefs generally exist in tropical and subtropical seas around the Equator where the water temperature is stable, around 21–29 °C, and are restricted to regions with water temperatures between 18 and 36 °C [2]. Azooxanthellate cold-water corals are found in cooler waters [3]. All corals need plenty of light to grow and grow best in waters less than 60 m in depth.

Coral reefs are living, colorful, multifaceted, vibrant underwater ecosystems that provide a home to 25% of marine species including fish, cnidarians, crustaceans, mollusks, sponges, tunicates, and echinoderms [4]. They have the highest biodiversity of any ecosystem globally in terms of the numbers of phyla and classes per hectare [5] and are often called the rainforests of the sea. It has been estimated that at least 100 000 species from almost every phylum live on tropical coral reefs; 4000 species from 100 families of fish have been documented at this time, and more species are yet to be discovered.

Coral reefs are colonies of groups of individual living animals called *polyps*. They are softbodied and radially symmetrical marine invertebrates of the phylum coelenterate. Reef-building corals host endosymbiotic dinoflagellates (zooxanthellae) of the genus Symbiodinium. Coral hosts profit from this mutualistic relationship by obtaining high-energy photosynthetic products in the form of sugars, amino acids, carbohydrates, and small peptides from the algae, while the symbiotic algae receive inorganic plant nutrients, carbon dioxide for photosynthesis by respiration, refuge, and protection within the polyp tissues [6, 7]. The symbiosis serves the primary purpose of restricting nutrient outflow into the surrounding oligotrophic water column. As a result, the host is endowed with substantially more energy than would otherwise be available to heterotrophs, enabling corals to extract calcium carbonate from surrounding waters and secrete it as a calcareous skeleton that forms the reef structure upon which they live. Millions of coral skeletons cemented together over a period ranging from a few thousand to millions of years give rise to reefs.



even before the plantation era in the district has begun and even culture of their own and built a new world here to live in before the migration of the people from the low land. They created $_{\rm a}$

members settlements. The works in this book have been prepared by faculty Adivasis and a wide variety of cultures pertaining to different tribal historical studies in Idukki. Each and every article in this book Murickassery and the historians who have been associated with the forefront. aspects and the peculiar legacy followed by the Adivasis to the serves to the objective of bringing the culture, social life, educational This work contains different articles on different sects of of P.G.Department History Pavanatma College,

to all the historians who contributed their knowledge through their available to the enthusiastic readers. I extend my heartfelt gratitude initiative extended hand of help and kindness from the beginning of this valuable articles. for being a great support throughout the process of making this work Suneesh K.K. and all other colleagues of the Department of History the Principal, Pavanatma College Murickassery and my colleague Dr I am deeply indebted to the management and Dr. Johnson V., I also thankfully remember all those who have

Tracing the Original Dwellers: Adivasis of Kannan Devan Hills

Dr. Jijo Jayaraj 71-81

Special Reference to Devikulam Taluk

Mrs. Mariyat George

49.70

Muthuvan Community

Dr. K. K. Suneesh 34-48

Traditional Knowledge of Medicinal plants of

Dr. Jobi John

Reference to Mannan Community

Mrs. Sheeba George 82-105

The Demographic Transition, Life and Resilience in Idukki: A Study in Oral

Mr. Santhosh George 106-119

Frame with Tribal Focus

Socio Economic Conditions of Tribes in Idukki District with Special

Table of Contents

Educational Status of Muthuvan Tribe in Koodackattukudy

Socio-Economic Inquiry of Mannan Tribes in Vathikudy Panchayath

A Socio- Cultural Study of the Mannan Tribe of Idukki District

Mr. Bibin Raveendran 13-33

Dr. Jobi John 1-12

40

Traditional Knowledge of Medicinal Plants of Muthuvan Community

Personal interview with Kumari chattupara on 1.03.2020. Personal interview with Leela plamala kudi on 28.02.2020.

TRACING THE ORIGINAL DWELLERS: ADIVASIS OF KANNAN DEVAN HILLS Dr. Jijo Jayaraj

shikkar and were recruited as guides and watchers adivasis. They were experts in the forests and planters called them as estates in the midst of the dense forest and had to accommodate the arrival of the European planters to this area. The planters opened the outside world. They had opened to the outside world only with the They had followed a peculiar life style and culture and kept aloof from the forests of Kannan Devan Hills from prehistoric period onwards. The adivasis or the hill population of the region is dwelling in

purpose was to settle the boundary dispute between the Travancore province from 1811 onwards. He came to high range in 1872. His the Cardamom hills. He was the British resident in the Travancore high range was John Daniel Munro, who was the Superintendent of the high range. The next man who made a detailed report on the for the purpose of the 'Great Trignometrical Survey' on the peaks of Lt. B.S Ward made his first record of the high ranges in November natural resources and landscapes. It is in the Memoirs of Ward and 1817 and was later published in his Memoirs in 1891.1 They came this was a colonial agenda in charting courses on exploitation of The land of Munnar was first investigated by the British and

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© Author First Edition 2021	 In Search of the 'Woman' - Cross Cultural Crises in Manju Kapur's The Immigrant Dr. Sureshkumar S. 	2
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	6. Cultural Identity Dr. Shoiab Ahmad Bhat	34
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pesetting by : R. Sharma	10. Addressing Cultural Alienation, Reclaiming Cultural Root A Critical Study of the Selected Poems of Easterine Kire and Malsawmi Jacob Anup Kumar Rakshit	:: 67
ed by Ison Press India Ltd.	11. Genesis and Burgeoning of Comparative Literature: A Course of Action to Acknowledge the World Literature Mahammad Pakmata II I of P	e 7

Contents

1. The Scholastic "Glass Bead Game": Comparative Literature as an Interdisciplinary Field of Knowledge Dr. Minu Susan Koshy

1

4. The Symbol of Marginalized in the play Seven Steps Around the Fire by Mahesh Dattani S. Pandimeena 178	23. Post Structuralism: A Theoretical and Practical Approach 172	22. Literature and Ecofeminism: A Close Reference to John Fowles' The French Lieutenant's Woman and Khaled Hosseini's A Thousand Splendid Suns 164	21. Cultural Studies in Novel The Lowland by Jhumpa Lahiri 160 C. Santhiva	ural Archive of Macondo in Ine Hundred Years of Solitude	 A View of Exploring Cultural Identities and Identity Intersections in World Literature S. Nirmaladevi 	18. Racism and Quest for Identity in Select Poems of Langston Hughes: A Historical Perspective Masuma Firdausi & Suhail Mohammed		Revolt in Amar Meyebela	est	United States Soumik Sengupta & Soumyaneel Dasgupta	Tagore's Poems Sanjuktir Pal 13. Haunting Post-Colonialism in Chinua Achebe's	vi isen sze sz edesze ^{2,5,7} 13 Enrichment through Translation: Analysis of Rabindranath
8	N	4	60	153	149	142	128	116	110	100	94	88

Chapter-1

Interdisciplinary Field of Knowledge The Scholastic "Glass Bead Game": **Comparative Literature as an**

Dr. Minu Susan Koshj

arts a painter might have played with the colors on his palette. (Hesse 1) and values of our culture; it plays with them as, say, in the great age of the between the content and conclusions of nearly all scholarly disciplines. The Glass Bead Game is thus a mode of playing with the total contents and arts . . . and capable of expressing and establishing interrelationships kind of highly developed secret language drawing upon several sciences These rules, the sign language and grammar of the Came, constitute a

which entwine it inextricably with other disciplines. Literature is interdisciplinary and the recent developments in the field The paper attempts to engage with the question of how Comparative used and misused. Here, it is important to understand how Comparative Literature, as a discipline has made use of this concept and to what extent. the term 'interdisciplinarity' often becomes a fashion-statement, much boundaries. The latter aspect assumes significance in the current era when extrinsic study of literature(s) across national, linguistic and disciplinary academic discipline and a critical system" (Jost 10), focusing on the the branch of knowledge designated as the Humanities. It is "both an Comparative Literature has come to occupy a prominent position in discipline called Comparative Literature. A product of the 19th century, L"Glass Bead Game" (1) can be considered the best metaphor for the fermann Hesse's formulation of the mysterious game called the

of scientific discourses and later extended it to philosophical discourses. The series of anthologies of French, classical and English literatures, titled in Comparative Literature, published in 1886. He focused on comparisons English, the combination was used first by Hutcheson Macaulay Posnett were used together for the first time by Matthew Arnold in 1848 and in which means 'comparison'. The terms "comparative" and "literature" The word comparative is derived from the Latin word comparativus,

Affiliated to Mahatma Gandhi University, Emakulam, Kerala rr, Dept. of English, Mar Thoma College for Women, Perumbavoor,

Assistant Profe

though its roots went deep into national cultures" (Bassnett 21). literature seems to have emerged as an antidote to nationalism, even "How Comparative Literature Came into Being" says that "Comparative" in "How Comparative Literature Came into Being" says that "Comparative" in the same into the same intothe same into the same intothe same intot national boundaries and promoting universal concord. Bassnett, in rise of Comparative Literature as a discipline was aimed at blurring of French, German, Italian, English, etc., literature" (Wellek 287). "Inc. Joint and at Li." as a reaction egans in the isolationism of many historians scholarship, as a protest against the isolationism of many historians """ as a reaction against the narrow nationalism of much nineteenth-century discipline. Here, it is important to note that "Comparative literature arose Wellek 11) of modern increases the Literature took shape as a concrete with these works that Comparative Literature Took shape as a concrete that "Comparative literature took shape as a concrete the state of the s Wellek 11) of modern literatures from different parts of the world. It was Wellek 11) of modern literatures from Literature took shape as a contract was to his second lecture serves university, he argues that this "are " France, en Italie, en Espagne et en Angleterre, he argues that this work in France, en Italie, en Espagne et en Angleterre, he argues that this work in the second s Francois Villemain, who populated Tableau de la literature au moyen ^{reface} to his second lecture series titled Tableau, he argues that this we age of helped bring Comparative Lincoln the term in France. In the Physical Francois Villemain, who popularized the term in France. In the Physical Tableau de la literature au moyen Cours de litterature comparee, envieent to the fore. However, it unas Aplant helped bring Comparative Literature to the term in France. In the p Alent Cours de litterature comparee, brought out in 1816 by Noel and Laplace Cours de litterature comparee, brought out in 1816 by Noel and Laplace

definitions and formulations are enumerated below: Rene Wellek, Susan Bassnett, Claudio Guillen and Guyard. Some of the numerous prominent comparatists and theorists, including H.H.Remak Attempts at defining Comparative Literature have been undertaken by

- expression. (Stallknecht and Frenz 3) others, and the comparison of literature with other spheres of human belief. . . In brief, it is the comparison of one literature with another or one particular country, and the study of the relationships between literature on the one hand and the other areas of knowledge and Remak, in his essay titled "Comparative Literature, Its Definition and Function" defines it as the study of literature beyond the confines of
- across both time and space" (Bassnett 1). and that it is concerned with patterns of connection in literatures involves the study of texts across cultures, that is interdisciplinary Susan Bassnett, in Comparative Literature says: "Comparative literature
- In Introduction to Comparative Literature, Francois Jost says: systematic study of supranational assemblages" (Murrin 285). certain tendency or branch of literary investigation that involves the that "Comparative Literature is usually understood to consist of a Claudio Guillen, in The Challenge of Comparative Literature argues

cultural universe, inclusive and comprehensive. (29) letters, a humanistic ecology, a literary Weltanschauung, a vision of the academic discipline. It is an overall view of literature, of the world ot humanism Comparative literature represents more than an Comparative literature represents a philosophy of letters, a new

Comparative Literature Culture and Translation Studies

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- For Guyard, Comparative Literature is "the history of international
- of spiritual international relations, of factual contacts which took and Vigny, between the works, the inspirations and even the lives of J.M.Carre defines it as "a branch of literary history; it is the study place between Byron and Pushkin, Goethe and Carlyle, Walter Scott relations" (qtd in Wellek 16).
- These definitions point towards several unique features of writers belonging to several literatures" (qtd. in Wellek 16).
- Comparative Literature: It is a study of literatures across national and geographical
- It studies literatures across cultures, languages, genres etc. boundaries.
- N It is an interdisciplinary field of knowledge.
- 3 4 It studies literatures and phenomena across time and historical
- Ģ establish the original unified condition. It attempts to locate the common origin of all literatures and

school to Comparative Literature was the theory of influences. The major school, and the Russian school. The major contribution of the French Comparative Literature as a discipline- the French school, the American of the Russian school include Alexander Vesyolovsky, V.M.Zhirmunsky method of analyzing literatures became prominent. The American school comparatists also gave a Marxist turn to the discipline and the historical van Tieghem, C.L.Pinchois, and P.Brunel. The second-generation French theorists of this school include Fernard Baldensperger, Paul Hazard, Paul of plots, theory of borrowing of motifs the concept of the stadial progress and Dioniz Dyurishin. The Russian school stressed on psychological across the world and stressed on humanistic essences. The proponents and artificial and criticized its strict adherence to the concept of national Erich Auerbach. They denounced the French school as being mechanical had its proponents in Rene Wellek, Harry Levin, Renato Poggioli and of civilization, and most of all, on interdisciplinarity. parallelisms between literatures across the world, polygenesis, migration literatures. They argued for a broader framework for studying literatures Three schools of thought played a major role in the evolution of

are on to promote inter-cultural and inter-disciplinary studies of literature established with the aim of promoting the discipline. Departments of Comparative Literature associations of individual countries have been Association, the American Comparative Literature Association, and An interesting phenomenon in the current century is the declining status Comparative Literature have been established in universities and efforts Various associations like the International Comparative Literature

4 ISBN 978-81-949267-5-7

of the discipline in the West paralleled by an increased interest in It is india. Brazil, Africa etc. Susan Bassnett attributes it to "the growth of national consciousness and awareness of the need to move beyond the colonial logacy" (8), as in the colonized countries, Comparative Literature colonial logacy" (8), as in the colonized countries, Comparative Literature was used as a means of asserting national identities.

Whilst comparative literature in the Third World and the Far Eng changes the agenda for the subject the crisis in the West continues. The new comparative literature is calling into question the canon of Breat European masters, and this process coincides with other challenges, that of feminist criticism . . . and that of post-modernist theory and through the work of writers such as Jacques Derrida and Pierre Bourdieu, has exposed the part played by the subterranean forces of institutionalized power structures, masquerading as centers of universal liberalism. (Bassnett 9)

investigation of literature and of specific literary qualities. (Virk 3-4) but maintain only that the centre of gravity should remain with the necessity of the dialogue of comparative literature with other disciplines Marjorie Perloff, Milan V. Dimic and Douwe Fokkema "do not deny the Comparatists like Michael Riffaterre, Peter Brooks, Jonathan Culler, iterature is nothing but a discursive practice which is a part of culture, the focus of the discipline should not be literature, but culture and that as been criticized for putting forth the argument that in the current era, practices etc of a community/social order. The Bernheimer Report (1993) the former since it involves not just literature, but the customs, ritual, cultural, interdisciplinary approaches, with the latter being wider than Comparative Literature within Cultural Studies since both are intera mere subsidiary discipline. There have also been attempts to subsume independent discipline capable of turning Comparative Literature into that the latter is no more a poor relation of the former, but rather an and Lefevere 12). Bassnett calls for a reconsideration of the relationship discipline, drawing upon "comparatistics and cultural history" (Bassnett netween Comparative Literature and Translation Studies arguing exerted considerable influence upon the discipline called Comparative iterature. In the last decade, Translation Studies developed as an inter-The onslaught of Translation Studies and Cultural Studies has also

Susan Bassnett, while discussing the relationship between Comparative Literature and Cultural Studies also says that "Today, that Comparative Literature in one sense is dead" (47), by which she means it is no more just a study of literary texts, but has broadened its scope to include other aspects of culture as well as other disciplines. And that is

Comparative Literature Culture and Translation Studies 5

why she states that Gender Studies, Cultural Studies, Postcolonial Studies, and Translation Studies are the new guises under which Comparative literature lives on.

Thus, over the years, Comparative Literature, as a discipline has undergone radical shifts and transformation, both in terms of form and content. While much work has been done on the inter-cultural, inter-national aspects of the discipline, the interdisciplinary approach it utilizes has not come under much scrutiny. In order to understand Comparative Literature as an interdisciplinary field of knowledge, we need to understand what interdisciplinarity is and how it evolved over the years and what role it plays in the current literary scenario.

'Interdisciplinary' has something to please everyone. Its base, discipline, is hoary and antiseptic; its prefix, *inter*, is hairy and friendly . . . the Latinate *discipline* comes encased in stainless steel: it suggests something rigorous, aggressive, hazardous to master; *Inter* hints that knowledge is a warm, mutually developing, consultative thing. (qtd. in Moran 3)

Interdisciplinarity has come to be of utmost importance in the current academic scenario, with interdisciplinary studies like Comparative Literature, Gender Studies etc assuming prominence in the academia. In this context, it is necessary to understand the evolution of the concept and define it in concrete terms.

Interdisciplinarity is possible because of the existence of disciplines in the first place. Knowledge was grouped into distinct disciplines from the classical period onwards. Aristotle's classification of knowledge into theoretical, practical and productive subjects is perhaps the first attempt at 'disciplining' knowledge. The scientific advancements led the Enlightenment thinkers to argue for distinct disciplines with their own methodology aimed at explaining specific phenomena, and not the entire system. Here, we see the full-fledged establishment of specialization and disciplinarity. Giambattista Vico advocated interdisciplinarity as a way of subverting the superiority of science over other disciplines. Michael McKeon associates the rise of interdisciplinarity with the eighteenth century when subjects began to assume extremely specific identities.

The term 'interdisciplinarity' was used for the first time at the Social Science Research Council in the mid-20s. It refers to the formation of links between disciplines and it is also an attempt to go beyond disciplinary boundaries. Roland Barthes asserts that interdisciplinarity arises only when "the solidarity of the old disciplines breaks down . . . in the interests of a new object and a new language. . . ." (Barthes 155). For him, interdisciplinarity always leads to some kind of transformation and he argues that it can serve as a critique of the narrow specialization that is often encouraged in universities. Alberta Arthurs, in her 1993

report on the general state of the Humanities, talked about the blum of disciplinary boundaries in the field. She argued for a new definition of the Humanities, which had scope for including Urban Studies Median History, Film Studies, Gender Studies and also cross-cultural studies, Sugaimed at a definition of the Humanities as an interdisciplinary field knowledge.

knowledge. Interdisciplinarity is a major concern when it comes to literature as the interdisciplinarity is a major concern when it comes to literature as the interdisciplinarity is about life in all its diversity, and this is hard to accommody within the narrow parameters of a discipline" (Moran 21). The very notion of language as a referential system stands as proof that literature inextricably connected with the outside world. F.R. Leavis, while arguing (Leavis 3) suggested that English, or rather, literary studies can serve as school, and the non-specialist intelligence in which the various studies are to find their centre is to be one that gets its own special training in literature (Leavis 43).

The 1967 Relations of Literary Study, edited by James Thorpe, introduced seven "extraliterary" (qtd. in Klein 87) qualities into the study of literature. The 1982 Interrelations of Literature by Barricelli and Gibaldi and films along with myth, psychology, sociology, religion, and music the history of literature. The emergence of theory was a landmark in to the fore issues such as race, gender and sexuality, culture, history the Humanities "encompasses ways of thinking that cannot be easily attempts to question the basic assumption of those disciplines" (82-83).

Debates about interdisciplinarity in literature are raging on. Thinkers of interdisciplinary studies. The latter argued that true interdisciplinary work "involves specialized learning and skills instead of universal warned, errors will result from shallow depth, and other disciplines on the other hand, was an advocate of interdisciplinarity." (Klein 97) which Anna Kaplan and George Levine talk of, depends upon the basic idea that the established disciplinary boundaries are decided upon arbitrarily. Stanley Fish challenged this mered of the "new interdisciplinarity", arguing that transgressing these boundaries is an act of revolution, imbued with ideology and

Comparative Literature Culture and Translation Studies 7

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such a transgression undoes the very foundations of disciplines, thereby undermining interdisciplinarity itself.

The most important question that arises in discussions about the interdisciplinary study of literature is whether literature itself has been lost in the process. As John Rowe says, "Literature as it was can't be saved" (qtd. in Klein 101). The term has expanded to include many other disciplines within it. 'Literature' implies not just the study of rhythm, rhyme, meter, narrative persona or theme of a text, but it also points towards the sociological, philosophical, political aspects of texts. But this does not mean literature has ceased to exist. It is just that it has assumed a broader framework and is now capable of accommodating much more than it could previously. And the discipline called Comparative Literature is excellent proof of this.

Comparative Literature, as can be seen from the definitions given by Remak, Bassnett, Aldridge etc, is essentially interdisciplinary in nature. It is its interdisciplinarity that makes the field called Comparative Literature stand out in relation to other streams of literary analysis. Comparison entails not just comparisons across nations and cultures, but also across disciplinary boundaries. Other disciplines such as Sociology, Psychology, Politics, Economics, Film Studies, Translation Studies, Cultural Studies etc play a prominent part in comparative discourses.

boundaries between disciplines. a "relaxing of discipline" (Bernheimer 36). Thus, Greene advocates attempts to reinforce disciplinary boundaries by warning us against interdisciplinarity and at the same time stresses upon the notion of fixed interdisciplinary studies as a threat to Comparative Literature and note that for Greene, literature is the thrust area, with other disciplines functioning as mere satellites of literature. In a way, he also considers involve a relaxing of discipline" (Bernheimer 36). It is interesting to knowledge. . . But we must also be alert lest the crossing of disciplines disciplines have "a salutary role to play in re-organizing our patterns of interdisciplinarity in Comparative Literature and says that other other arts and disciplines like history, mucic, folklore etc. He welcomes when the discipline gained prominence in the USA after the Second an interdisciplinary field of knowledge. Greene, in his report, says that World War, it aimed at exploring the relationships between literature and documents in understanding the status of Comparative Literature as of the American Comparative Literature Association are important The Greene Report of 1975 and The Bernheimer Report of 1993,

The Bernheimer's Report argues that "The notion that the promulgation of standards could serve to define a discipline has collapsed in the face of an increasingly apparent porosity of one discipline's practices

tasks" (Bernheimer 67) would help reduce the gap between the two. complementary to each other and a "redistribution of their respective connected with Cultural Studies. He believes that the two disciplines are and the importance accorded to popular literature are elements closely important to Comparative Literature, his emphasis on contextualization Studies", argues that Bernheimer's endorsement of translation as "On the Complementarity of Comparative Literature and Cultural has also to be highlighted at this point. Michael Riffaterre, in the essay Studies, outlined by Michael Riffaterre, based on the Bernheimer Report and the arts become possible. poetry). It is thus that interdisciplinary comparisons between literature literature) and a sense of rhythm and structure (in the case of music and literature and the arts include spatial form (in the case of painting and literature and arts like painiting, music, sculpture etc. Factors that link essay titled "Literature and the Arts" explores the relationship between studies across these disciplines possible. Similarly, Mary Gaither, in her The interconnectedness of Comparative Literature and history of both literature and psychology, thereby making comparative 96). The evolution of psychoanalysis was a major turning point in the involved in the study of the subjective side of man" (Stallknecht and Frenz capacity to create and use symbols. In this process, both have become are concerned with human motivations and behavior and with man's interconnectedness of literature and psychology, arguing that "both other disciplines such as Psychology, Film Studies, music, art etc. 43) betrukeniki second acquainting themselves with concepts from 43). Bernheimer stresses on the importance of teachers as well as students 43). Bernheimer stresses on the importance of teachers with concern institutional contexts in which their meanings are produced. (Bernheimer readings should take account as well of the ideological, cultural, and which they are produces, such that "textually precise discursive contexts which produce literature, such that "textually precise discursive contexts which produce literature, such the ideological, cultured the second se is thus concerned nov to the second method in the second s the very fabric of the used with literary texts, but also with the contexts is thus concerned not just with literary texts, but also with the contexts in is thus concerned not just with literary texts comparatists to focus "these new ways of reading and "Bernheimer 42). 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Bernheimer argues that such a change or and Cultural Theory to it. Bernheimer argues the comparatists believe of to studies of literature, newy Literature, by adding 'and Cultural Studie departments of Comparative Literature, argues that such a chandle In "Literature and Psychology", Leon Edel talks about the Literature has become provide angue for a change in the nomenclature in the nomenclature in the studies of literature. Many argue for a change in the nomenclature in the studies of literature in the studies of literatur across and the studies are not limited with the studies are not limited by the studies are not linited by the studies are not limited by the studies are no across literatures, but also account of the term literature in Company across literatures. As such, the use of the term literature in Company various disciplines. As such, the use of the term literature in Company various disciplines. As such, the use of the term literature in Company various disciplines. 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But later, with the advances asserted that the discipline could survive only because of the existence initially seen as a sub-category of Comparative Literature and it was to the original and were accorded a low status. Translation Studies was not encouraged. Translated works continued to be considered inferior discipline. Later, translations also came to be accepted, although it was Reading the original was mandatory if one were to specialize in the Comparative Literature was opposed to translation of texts for study right. The importance of Translation Studies to Comparative Literature Literature and Translation Studies is also significant here. Traditional comparative literature can take place without regard to translation" (qtd. shaping force in the development of world culture and no study of was highlighted by Bassnett and Lefevere: "translation has been a major Zohar and Gideon Toury among others, translation came to be accorded a of literature are multilingual. Hence, the importance of translations in Bassnett 148). well. enables it to borrow from and contribute to these two disciplines as of Comparative Literature with Cultural Studies and Translation Studies, for comparative study cannot be ignored. Nor can the importance of the other hand, the interdisciplinary approach of Comparative Literature thus, has not led to the cutting off of links between the disciplines. On Translation Studies to Comparative Literature. The deep-rooted rivalry across disciplinary boundaries. Concerns over the diminishing space given on interdisciplinarity has often led to shallow studies, with students of to concerns about the dilution of standards. Theorists argue that the stress major voice in this direction has been Remak's. In his essay "Origins and to literature as such in Comparative Literature have also been raised. The literature with half-knowledge of other disciplines attempting comparisons by external factors, but also by "intra-professional constituencies' that in recent times, literature has been forced to the margins not only the gradual interdisciplinary turn of Comparative Literature and argues of more than one language and literature for comparatists. He traces discipline by shifting focus from the stress on the need for knowledge literature to the margins as well as of diluting the standards of the he accuses the interdisciplinarity of Comparative Literature of pushing Evolution of Comparative Literature and Its Interdisciplinary Studies" (246). The major criticism leveled by Remak against interdisciplinarity An understanding of the relationship between Comparative Nowadays, in the wake of extreme specialization, not many scholars The interdisciplinarity of Comparative Literature has often led Comparative Literature Culture and Translation Studies 9

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While the interview of the discipline, it is also important to remember they a positive feature of the discipline, it is also important to remember they have been appreciately the second seco it dramatically - interdisciplinary studies without disciplines" (Remak 250), it dramatically - interdisciplinary of Comparative Literature is doc. 250). the very concept of even approximate disciplines so we now have -to put the very concept of even approximate disciplines without disciplines" (Remak 25 put the put the very concept of even approximate disciplines without disciplines are put to put the very concept of even approximate disciplines to the put the very concept of even approximate disciplines are put to be put the very concept of even approximate disciplines are put to be put the very concept of even approximate disciplines are put to be p blurring of boundaries comparative Literature has problemative inter-disciplinary studies in Comparative Literature has problemative of inter-disciplines so we now have the studies of th non-English culture, and uncertain disciplines. "The contamination effect blurring of boundaries between disciplines. "The contamination effect of blurring of boundaries in Comparative Literature has problemate of which demands knowledge or that not been able to prevent the chaot on non-Erglish culture, and that, it has not been able to prevent the chaot on the chaot of th "the inter-national/inter-mass-" the language and literature of at least 0.249" which demands knowledge of the language and literature of at least 0.249" which demands knowledge of the language and literature of the characteristic states and that, it has not been able to prevent the characteristic states and that the characteristic states are states and that the characteristic states are states and that the characteristic states are states and the characteristic states are states at the characteristic states at the characte He asserts that interdisciplination of comparative literature⁽ⁿ⁾, the international/inter-linguistic core of comparative literature⁽ⁿ⁾, the international/inter-linguistic core of an literature of at least (249). Vertical literary-cultural to the regression (24) He asserts that intendisciplinary studies have led to the regression (24) He asserts that intendisciplinary core of comparative literature. (24) while the interdisciplinarity of Comparative Literature is definitely.

Sciences and the Humanities" (Spivak 27) and "disciplinary fears" (Spivak Discipline, a "(politics of) friendship" should prevail between "the Social and also, foreign languages. Also, as Gayatri Spivak says in Death of include at least introductory courses to disciplines other than literature be encouraged in universities and the curricula should be broadened to language of specialization. Inter-departmental collaborations should also one discipline other than literature and one language other than their Comparative Literature have at least under-graduate degrees in at least least and one language other it. contexts" (Bernheimer 104). It would help if students and teachers of restricting its dialogic interaction with other discourses and its various restricting its dialogic interaction with help if students and teacher and shallow details around the those disciplines. To quote Peter Brooks, teacher is not familiar with those disciplines. To quote Peter Brooks, shallow details from other disciplines, especially if the scholary scholary is the scholary and scholary and scholary and scholary and scholary and scholary "...literature must very much remain our focus, while by no means"...literature must very much remain other discourses and ite a positive feature of the survey of the school of the scho

not only knowledge, but also tact and flexibility. diverging. The "Class Bead Game" (Hesse 1) is indeed one that requires nations, literatures and disciplines are constantly shifting and merging/ of multiculturalism" (Bernheimer 1) when boundaries between cultures, area, which has to be dealt with, with utmost care, especially in this "age Interdisciplinary in Comparative Literature is thus a problematic

comparative literary studies.

the physical/natural sciences as well, if new areas are to be explored in 19) should be overcome. This should be the case with the Humanities and

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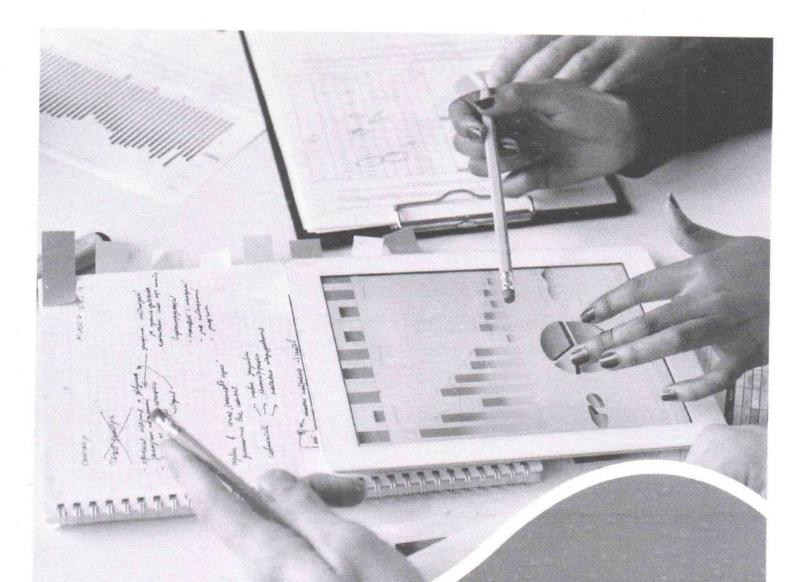
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	fruits of Moringa oleifera Lam. from Super Market of Gulbarga district,	378
	Karnataka, India	
	-DR. SUJATA M. P.	
67.	Mycoremediation for Dye Effluents	383
	-MRS. PUSHPANJALI S	505
68.	Role of Media: An Insight into the Violation of Privacy Rights	287
	-MEGHA MIDDHA	207
69.	Construction and Tryout Virtual Reality Based Learning material In GST Unit	291
70	-SAMIM USMANALI SAIYAD	271
70.	Swami Vivekananda Concept of Man Making Education	396
71	-SMT. CHAITALI MONDAL	
71.	Paradigm Shift of Indian Jurisprudence: Traditional To Modern	400
72.	DR. SUNNY SURESHKUMAR HASANI	
12.	Spline Curves and their Applications	405
73.	-DR. URVASHI MISHRA	
15.	Virtual Interactive Classroom for Teachers - Challenges and Anticipated Future -MS. PRERANA TAYLOR -MS ANUBHA CUPTA	413
	-MS. PRERANA TAYLOR -MS. SONI CHOUDHARY	
74.	Corporate Governance in India: Recent Developments and New Trends	
	-DR. BHARAT G. KAURANI	422
75.	The antiproliferative and chemopreventive activity of Moringa oleifera extracts	100
	-SUSEELA LANKA	429
76.	A Study on the Metamorphic Changes in Indian Education during Lockdown.	437
	-SUMANTRA CHAKRABORTY	437
77.	Biotechnological approaches towards insect pest management in Agriculture	441
	-VISAKH N.U	1 4.4
78.	Food Waste Reduction: A Need of the Hour	A 4 5
	-MS. RINA DONGRE	445
79.	Impacts of Information Technology On Society	450
0.0	-DR. B. KARTHIKEYAN	450
80.	Plantation Monuments: Remnants of The Bygone Era	456
01	-JIJO JAYARAJ -ASWATHY K S	
81.	Women Leadership Issues In Universities of India	463
82.	-MISS KRISHNAJYOTI NATH	
52.	Teaching Aptitude in the context of Primary School Teacher	468
	-DARSHNA JIVRAJBHAI MALAKIYA	



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PLANTATION MONUMENTS: REMNANTS OF THE BYGONE ERA

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It was through modernity that the high range walked to modernity. The Europeans thus evicted the native aborigines and established his own country there. High range was evolved in to an another Europe. Rising from the routes of incursion and exploitation were the buildings and palaces of Gothic architecture that were born during the European renaissance. The whites who climbed the mountain were able to uproot the area from all its indigenous features and completely alienated it. They did everything possible to bring about such a change. More than half a century after the last British conquest, remnants of that period still remain in the hilly soil. The Europeans reognised the fertility of soil in Idukki even before the migrant farmers. The white man, who had climbed the mountain, was exposed to a new path of exploitation. Her soil was so fertile, and her forests so rich. All the major changes were centered on Munnar. Munnar became a self-sufficient region in a very short period of time under British rule. All the physical changes that are still evident in high range date back only to the time of European occupation. Apart from this, social, cultural and religious changes were also manifested here under foreign domination

✤ ANJAL OFFICE AT DEVIKULAM

The over a century old building that housed the 'Anjal'Office (Post Office) at Devikulam is in a bad condition. This Anjal Office located at Devikulam near Munnar remains as the memory of a century old history of plantation in Munnar or in the Kannan Devan Hills. The Anjal system remained as the main means of communication with the plantation estate with the outside world. The European planters lived in the hill station depended on this system for connecting with their beloveds stayed miles away in Scotland or in different parts of the world. This also remained to be the major source of communication with the Kannan Devan Hills Produce Company and the Travancore State. The Anjal office was located along with the Sathram for the travellers. The Anjal office started functioning in the 18th century under the Moovattupuzha postal system as a third-grade post office, there are no documents to prove the claim. Some of the documents connected to the later periods of history had been taken to the higher postal department office.

The buildings are historically important as Devikulam was the headquarters of administration during the British rule and the erstwhile Travancore Kingdom. Under the Devikulam Anjal office, sub-offices also functioned at Munnar, Marayur, Santhanpara, Mapping the Postcolonial Domestic in the Works of Vargas Llosa and Mukundan Tales of the Threshold

Minu Susan Koshy

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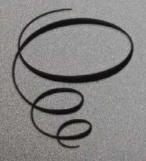
Mapping the Postcolonial Domestic in the Works of Vargas Llosa and Mukundan:

Tales of the Threshold

By

Minu Susan Koshy

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Mapping the Postcolonial Domestic in the Works of Vargas Llosa and Mukundan: Tales of the Threshold

By Minu Susan Koshy

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CONTENTS

Acknowledgements	
Abbreviations and Notes	i
Introduction	1
Chapter I	
Chapter II	7
Chapter III	18 1
Chapter IV	73
Chapter V2 Conclusion: Rhythmanalyzing the Postcolonial Domestic	225
Appendix 1 2	237
ppendix 2	240
Vorks Cited	243

This book is among the first works to engage with postcolonialism through the lens of the domestic in its totality, encompassing multifarious aspects such as domestic space, objects, family and servitude among others. The study foregrounds the inadequacy of Western theories on the domestic in explaining the postcolonial situation, and proposes alternate methods of analysing the 'inner' realm of colonial experience. Structured within the framework of comparative literary studies, the work serves to contribute to the tri-continental model of comparative literature, establishing mutually illuminating connections between the continents.

The study provides scope for a widening of the epistemological base of critical inquiry, especially in the domains of postcolonialism, area studies and comparative literature. It explores new avenues in cross-cultural studies, contributing to the transnational diffusion of cultures and literatures, by focusing on what has been termed 'minor'—the domestic and its rhythms in postcolonial cultures.

Dr Minu Susan Koshy currently works as Assistant Professor in the Department of English of Mar Thoma College for Women, affiliated to Mahatma Gandhi University, India. She has published extensively in various journals and her books include *Narrating Childhood Trauma: The Quest for Catharsis*, a translation of the Malayalam anthology *Tattoo*, the winner of the Kerala Sahitya Akademi Geetha Hiranyan Award, and an edited poetry collection by Elizabeth Kuriakose titled *Gossamer Reveries*. She is a member of the editorial board of *The Journal of Global South Studies* and *Education, Society and Human Studies*. Her areas of interest include cultural studies, postcolonial studies, and comparative and world literatures.

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Human and Heritage: An Archaeological Spectrum of Asiatic Countries

(Felicitation to Professor Ajit Kumar)

Volume – II

Human and Heritage: An Archaeological Spectrum of Asiatic Countries

(Felicitation to Professor Ajit Kumar)

Volume – II

Editors

Rajesh S. V. Abhayan G. S. Preeta Nayar Ehsan Rahmath Ilahi

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Editorial

We are happy to bring out *Human and Heritage: An Archaeological Spectrum of Asiatic Countries* (*Felicitation to Professor Ajit Kumar*) as a symbol of appreciation for the commendable work Prof. Ajit Kumar carried out in the field of archaeological research for the last 36 years. His contributions have covered areas like Buddhist Art, Kerala Archaeology, Ethnography, Rock art, Indian art and Iconography. The role he played in imparting archaeological knowledge to the younger generation and inspiring them to take archaeological research as a profession has been remarkable. There were occasions, especially at its inception stage when the Department of Archaeology started admitting students for Post Graduate courses, he shouldered the responsibility of running a University Department single handedly to the satisfaction of students as well as the authorities of the University.

When we started working on this volume, the response we received from scholars in India and abroad was impressive, and indicative of the respect Prof. Ajit Kumar widely enjoyed in the field of Archaeology. We received 71 articles from established archaeologists and budding scholars, especially the youngsters who pursue Archaeology as a profession, for this volume. These articles dealt with a wide variety of aspects in Archaeology like Prehistory, Protohistory, Iron Age, Historic Period, Art History, Museology, Tourism Studies, Architecture, Ethno archaeology, Numismatics and Iconography.

We, as editors, take this opportunity to thank all the contributors of this volume, who spared their valuable findings with us for the enrichment of this felicitation. We are grateful, in particular, to authors from abroad, who made this publication a remarkable one with their scholarly articles.

We hope that this volume will be useful as an important reference work for all those who are interested and conducting research in Archaeology.

Rajesh S. V., Abhayan G. S., Preeta Nayar and Ehsan Rahmath Ilahi

Editors



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Contents

	Editorial Editors Contents Professor Ajit Kumar: A Narrative Account <i>Ehsan Rahmath Ilahi</i>	Page No. i-ii iii-iv v-xii xiii-xlviii
	Volume - I	
1	Stone Beads from Megalithic Burial at Niramakulam, Kerala Akinori Uesugi, Ambily C. S., Ajit Kumar, Abhayan G. S. and Rajesh S. V.	1-22
2	The Moorish Mosque of Kapurthala, Punjab Vrinda Agrawal	23-41
3	Pillayar Ratha of Kalkulam Neelakanda Swami Temple, Tamil Nadu Arya P. N. and Preeta Nayar	42-57
4	New Light on the Perumals of Kerala: An Analysis of the Tirumalai Jain Inscription of Vidugadalagiya Chera Perumal <i>M. S. Dhiraj</i>	58-69
5	Ethnohistory as a Conjunctive Approach in New Archaeology: A Dialogue with the <i>Annales</i> School <i>Samseer R. H. and Bushra Beegom R. K.</i>	70-77
6	Acheulian Thar: A Case Study on Didwana and Jayal in Rajasthan <i>Gargi Chatterjee</i>	78-86
7	Marici in Buddhism: Notes and Discussion with Reference to Images from Ratnagiri, Odisha <i>Sindhu M. J.</i>	87-93

8	The Reflection of Carpet Designs on the Mughal Miniature Paintings; As a Folio or Individual Work <i>Somayye Keighobadi Lemjiri</i>	94-123
9	Shells and Shell Objects from Moti Chher in Lakhpat Taluka, Kachchh District, Gujarat Soorya P., Rajesh S. V., Abhayan G. S., Subhash Bhandari and Bhanu Prakash Sharma	124-145
10	The Depiction of Narasimha Panels in the Temple Murals of Kerala Sheena V. R.	146-153
11	Kalhora Dynasty in Pakistan and Its Impact on Local Architecture Syed Shakir Ali Shah and Qasid Hussain Mallah	154-161
12	Traditional Vanchi (Boat) Making in Kerala Vishnu Surendran and Ajit Kumar	162-169
13	Royal Titles, Epithets and Kingship: An Archaeological Analysis into the Epigraphical Records of Venad Kings <i>Vinuraj B., Ajit Kumar, Aswani O. K. and Mohammed Muhaseen</i> <i>B. S.</i>	170-183
14	Beginning of Pre Harappan Forts Umesh Kumar Singh	184-195
15	Megalithic Vestiges in Udumbanchola Taluk, Idukki District, Kerala Sandra M. S., Rajesh S. V., Abhayan G. S., Sheena V. R. and Renjeshlal S. R.	196-223
16	Painted Narratives in Temples at Vira Wah and Nagar Parkar in Pakistan Zaheer Uddin Shar and Qasid Hussain Mallah	224-229
17	Evidence in Pieces: Osteological Analysis of Stray Findings from Kottapuram Human Remains <i>Veena Mushrif-Tripathy</i>	230-246
18	Rock Art and Archaeology of Phulsari: A Revisit to a Forgotten Multicultural Rock Art Site in Raisen District, Madhya Pradesh <i>Shaik Saleem</i>	247-256

19	Indus Graffiti from Gujarat Ehsan Rahmath Ilahi, Rajesh S. V. and Abhayan G. S.	257-269
20	Soanian Assemblages from the Bam Locality of Siwalik Frontal Range of Himachal Pradesh: A Preliminary Study <i>Worrel Kumar Bain</i>	270-295
21	Bronze Casting at Mannar in Alappuzha, Kerala - An Ethnographic Study <i>Akhil K. N., Preeta Nayar and Kumbodharan S.</i>	296-317
22	New Interpretation on Prehistoric Rock Art at Pha Taem, Klong Jeam District, Ubon Ratchathani Province, Thailand <i>Wilasinee Chamsaard</i>	318-327
23	Terracotta Roof Tiles from Vizhinjam, Kerala Ananthu V. Dev, Rajesh S. V., Ajit Kmar and Abhayan G. S.	328-340
24	Tracing the Origins of <i>Aksha Krida</i> (Chaturanga) Game: Study of Selected Sculptures and Painting <i>R. H. Kulkarni</i>	341-350
25	Tourist Satisfaction towards Archaeological Heritage Sites in Sri Lanka with Special Reference to World Heritage Site Galle Dutch Fort Indrachapa Gunasekara	351-354
26	Historiography of the Megaliths of Kerala K. P. Rajesh	355-366
27	Śrīvatsa: Journey of an Auspicious Symbol Crossing All Boundaries Arati B. Kulkarni	367-373
28	Reminiscing the "Iron Man of India" through Biographical Museums: Reflections on the National Memorial, House Museum and the Smruti Kendra <i>Ambika Patel</i>	374-381
29	Interfaces of Asian Art in the Art Forms of Karnataka: A Few Case Studies <i>M. S. Krishna Murthy</i>	382-396

vii

30	A Comparative Study of Material Culture Found from Excavations at Bhokardan and Paunar in Maharashtra <i>K. S. Chandra</i>	397-403
31	Kerala's Mediaeval Society and Trade as Gleaned from Literary Works Like Sandesha Kavyas, Achicharithams and Ananthapuravarnanam Mohammed Muhaseen B. S., Ajit Kumar and Vinuraj B.	404-413
32	Role of Fairs and Festivals in Facilitating Indigenous Trade Network in Early Medieval Kerala <i>N. Sudarsana Kumar</i>	414-422
33	Arethipura in Karnataka and Its Surroundings R. N. Kumaran and B. Janardhana	423-442
34	Glazed Ceramics and Indicators of Glazed Ceramic Production from Lashkarshah, Khambhat, Gujarat <i>Arun Kumar K. S., Rajesh S. V. and Abhayan G. S.</i>	443-462
35	Tamraparni - Perennial River of Pandya Kingdom: Gleanings from Literature, Epigraphy and Numismatics <i>K. R. Ramasundaram</i>	463-470
36	Buddhism in Uttarakhand: Monuments from Past and Present Alka Barthwal	471-480
	Volume - II	
37	Small Water Crafts of the Lower Chaliyar Basin, Kerala: An Ethnographic Approach Jaseera C. M. and Sreelatha Damodaran	481-496
38	In Search of a Mythical Artisan: Tracking the Jakanachari Legend of Karnataka <i>Apoorva G. and Srikumar M. Menon</i>	497-524
39	Analysis of Faunal Remains from Navinal, Gujarat Ajith M., Abhayan G. S., Rajesh S. V. and Shad Matthias Gobinsingh	525-540
40	Preliminary Report on Documentation and Study of Rock Art Sites in Raisen District, Madhya Pradesh, India Shaik Saleem and Parth R. Chauhan	541-565

41	Survey and Documentation of the Built Heritage of District Chakwal, Punjab, Pakistan Hadiqa Imtiaz	566-579
42	An Interesting Form of Nataraja in the Wooden Panel of Ernakulam Shiva Temple in Kerala <i>Kumbhodaran S. and Preeta Nayar</i>	580-587
43	Jainism in Kerala: Iconographical Considerations and Identity Formations <i>Jenee Peter and Krishnanjali A. R.</i>	588-600
44	Gori Jain Temple Icon and Painting Narratives: A Case Study of Nagar Parkar, Sindh, Pakistan Zaheer Uddin Shar and Qasid Hussain Mallah	601-608
45	An Ethnographic Study of Rock Art of Upper Damodar Valley: Jharkhand Himanshu Shekhar, Bulu Imam and Justin Imam	609-621
46	Conserving Nature as Cultural Landscape Reflects in the Sacred Grove Cult of Hill Tribes of Kerala: A Glance <i>Rohinikrishnan R.</i>	622-633
47	Harappan Graffiti from Dholavira Vinod V.	634-645
48	Art and Architectural Grandeur of Muṇḍeśvarī Temple in Bihar: An Overview Vinay Kumar and Umesh Kumar Singh	646-653
49	Tomb of Adam Shah Kalhoro, Sukkur, Pakistan Syed Shakir Ali Shah and Qasid Hussain Mallah	654-657
50	Some Aspects of Deccan History: Based on Foreign Travelogues Shaikh Musak Rajjak	658-671
51	"Early Medieval" in the History of Kerala Arya Nair V. S.	672-680
52	Religious Architecture of Bishnupur, Bankura District, West Bengal <i>Worrel Kumar Bain</i>	681-699

53	Archaeological Investigation into Microlithic Assemblage of Bhorgiri - Bhimashankar Region of the Upper Bhima Basin in Pune District of Maharashtra <i>Amit Sopan Bhagat</i>	700-716
54	Archaeological Monuments in Ponnani Taluk, Kerala: An Overview Muhammed Fasalu K., Rajesh S. V., Abhayan G. S., Sheena V. R. and Renjeshlal S. R.	717-745
55	The Temple in the Sea, that Never Forgets Indian Indentured Workers Shad Matthias Gobinsingh	746-756
56	Mathura: Settlement Archaeology and Trade Routes Vinay Kumar Gupta	757-771
57	A Brief History of Incense and Incense Burners Anjana S. Nair and Preeta Nayar	772-782
58	A Study of Lithic Assemblages in Tali and Lalpur Villages of IGNTU from a Typo-technological Approach <i>B. Janardhana and Lalita Lahari</i>	783-793
59	A Brief Analysis of Kilimanoor Record and Vellalur Inscription <i>Renjeshlal S. R. and Aswathy V. Nair</i>	794-808
60	Mural Legacy of St. Mary's Church at Kalloorkkad, Alappuzha, Kerala <i>Reni P. Joseph, Abhayan G. S., Rajesh S. V., Sheena V. R. and</i> <i>Renjeshlal S. R.</i>	809-828
61	Archaeo-Tourism in Kurnool District, Andhra Pradesh: Transformation of the Rock Art Site <i>Lanja Banda</i> into Future Tourist Destination <i>Yadava Raghu</i>	829-832
62	Archaeology of Kottayam Taluk, Kerala Renjinimol M. N., Rajesh S. V., Abhayan G. S., Sheena V. R. and Renjeshlal S. R.	833-853
63	A Bifacial Image of Surya-Narayana from Bihar in National Museum, New Delhi Jalaj Kumar Tiwari	854-857

64	Heritage Tourist Attractions in Fort Kochi, Kerala Raj K. Varman	858-868
65	The Fading Murals of Travancore: A Retrospect <i>Vysakh A. S.</i>	869-900
66	Technology of Temple Building in Medieval South India, with Special Reference to Viswakarma Community <i>V. Ramabrahmam</i>	901-910
67	An Appraisal of Megalithic Religion, Beliefs and Practices with Special Reference to Kerala <i>Aswani O. K., Ajit Kumar and Vinuraj B.</i>	911-921
68	Decoding the Language of Sculptures at Rameshwar; Cave No. 21 - Ellora: The Search for the Unseen <i>Rahul Deshpande</i>	922-925
69	A Unique Prehistoric Painted Panel of Ranganatha Gudda (Badami) in Peninsular India: Cultural Ecology <i>Mohana R.</i>	926-935
70	Pre and Protohistoric Archaeology of Kerala: Issues and Challenges <i>Saravanan R.</i>	936-939
71	A Note on the Bharata and Bahubali Wrestling (Grappling) Panel at the Jabareshvara Temple at Phaltan, Maharashtra <i>Kush Dhebar</i>	940-942
	Contributors	xlix-lvi

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Harappan Graffiti from Dholavira

Vinod V.

Introduction

The term graffiti is derived from an Italian word "graffito" postures scratched, has a Greek root meaning "write". These scratched marks occur in pottery, and also found occasionally on other materials like terracotta, stone, metal and bones. Graffiti are often written by a common hand rather than a trained scribe. It may be a sign/symbol borrowed from a former script or an ideogram, abbreviation, numeral, or random mark expressing self or mood. The earliest graffiti marks are alleged to be potter's or owner's logo expressing ownership and presumed to be pre runners to scripts, co-relates with the origin of writing. Pottery graffiti retains important and unknown information about its users, on a comparably neglected medium, offer great scope for an improved investigation into issues like the script and chrono-cultural trajectories of the Harappan culture.

Background of the Study

The most enigmatic hunt for about 100 years of Harappan researches is its undeciphered writing system. The absence of long inscriptions (the average sign is 4.6), or any "Rosetta stones", left scholars guessing, making propositions over meaning and language the symbols represent. Hence, Cunningham's first discovery of an Indus seal in 1853, till date, more than hundred pseudo decipherments had floated the arena, yet none has convincingly dissolved the complexity of the mighty writing system (Possehl 2006). Succession of divergent opinion and queries heated up the Indus deciphering desk and scholars were reluctant to settle on various core aspects. Is it really a script or some other religious-political symbols? (Farmer et al. 2004). How many symbols/signs do they possess? (Mahadevan propose 417, Hunter 102, Wells 700, Parpola 452 and S. R. Rao 62 symbols), What language the system might have expressed? (Dravidian by Mahadevan, Parpola, Winter and Vedic or Indo-Aryan by Rao, Kak, Jha and Rajaram while B.B Lal expresses possibility of some dead language).

The efforts of Hunter (1934) Heras (1953), Knorozov (1965) Finn (1968) Lal (1968), Mahadevan (1977), Joshi and Parpola (1987), Fairservis (1987), and Parpola (1997) are worth mentioning for the present understanding and set sound platform for years of research to come. However, it is generally accepted that the script consists of 400-600 single and compound signs. These signs are not random, display some sequence often represents numerals or numeral like signs. Some frequently used signs are either abstract or pictographic representing a logo-syllabic script; one

which has both word-signs and phonetic syllables. It is mostly written alternatively from right to left (Boustrophedon) and is used for writing a language; probably proto-Dravidian.

Harappan signs are found on variety of writing medium and objects which include, terracotta, ceramics, shell, bone, stone, stone ware, glazed faience, metal, and ivory on diverse objects such as seals, bas relief tablets, clay impressions, tags, tools, vessels, beads and bangles. The most surviving category of inscribed objects is square or rectangular steatite seals often represent bull or mythical unicorn with short inscriptions. No direct link has been found between the image and the inscription on the seals. Kenoyer (1998) has suggested that they may have acted as badges and been worn by individuals. Other seal types like large rectangular, cylindrical and box type with inscriptions are quite rare. The clay sealing of which relatively few have survived, bear the impression of one or more seals or the same one several time. Same is with inscribed tablets, ivory and bone rods, shell bangles, inlays, stone wares and jewellery with inscription mostly confined to large centres of Mohenjo-Daro, Harappa and Dholavira, represent a minute percentage of the total writing of the Harappans.

Thus, the available written media provide a partial function of the script while Marshall explains the lack of evidence as the Harappans might have been using traditional sub-continent writing media of wood, cotton cloth, bark, palm leaves, etc. would long since have decayed away. The small surviving writing media, confined to large cultural centres mostly belong to the urban phase of occupation; reduce the scope of a successful decipherment. In such context pottery graffiti offer tremendous potential to be identified as a medium for further research. Its easy availability, easy to write and store, no elaborate preparation methods required before writing like other perishable materials make it a popular medium for writing as in the case of many old civilizations. The inscriptions inscribed on pots before or after firing gave information on the designated content, capacity or ownership of the vessels. Though pottery graffiti bears short and fragmentary information, due to its variety and workmanship, holds the key in unlocking the mysteries of Harappan writing system.

Graffiti has been reported from almost all Harappan sites irrespective of its dimension and deposit. They are known from the earlier pottery records of the greater Indus region and continued to be used through Mature Harappan into later time throughout the Indian subcontinent. Mehrgarh records the earliest evidence of pottery graffiti at period III (4800-3500 BC) while Harappa gives the first progressive evidence of it stretching from Ravi Phase (3300 -2800 BC) through Kot Diji Phase (2800-2600 BC) in to Harappan (2600-1900) BC) and late Harappan Phases (1900-1300) (Kenoyer 2006). Graffiti has been ignored in most excavation reports, leaving a random description of some furious marking as pre/post firing scratches.

Exceptions are the works of B. B. Lal (1960, 1968), S. R Rao (1962) and Daniel Pots (1980) which deserve special mention. Rao (1962) provided a list 222 pottery graffiti marks from Rangpur and categorized them in to three groups as per the form they displayed. He identified 26 sherds in category I which consist of motifs of human forms, animals and birds. Category II consisted of linear symbols evolved from the Indus signs represented the maximum number of 188 symbols, while category III consists of a combination of several linear signs, display of 8 signs altogether. Further, a comparative chart was prepared after considering sites like Harappa, Mohenjo-Daro, Lothal, Rojdi and proposed a strong bond between the graffiti and the Indus signs/script. A continuity and change of these marks at variant cultural context (Megalithic) was proposed after considering the sites of Navdatoli, Maski, Brahmagiri and Sanur. Lal (1960), in his

exclusive documentation, identified 66 basic Chalcolithic-Iron Age graffiti marks (Harappan to Megalithic period). Out of 61 basic symbols identified, 47 are common to Harappan and Megalithic; while 8 symbols exclusively of Chalcolithic and 6 of Megalithic period. Statistical analysis suggests 85% of Harappan symbols continue down to Megalithic period and a strong connection and continuity was proposed between the symbols. Pots (1980), tried to work out a relationship between the potter's marks of the Indo-Iranian border lands from the third through first millennium BC. He prepared a master sign list of site Tepe Yahya and compared with other sites of Indo-Iranian boarder lands, Central Asia and the Indian subcontinent. Continuity and probable ancestry of Harappan script with that of the recorded graffiti marks was attempted.

Dholavira: An Overview

Dholavira (Figure 1) is one among the five largest Harappan sites found so far. The site was excavated by ASI under R. S. Bisht for 13 seasons (1989-2005). The excavation unearthed several new fascinating facts of Harappan culture, then known, a long history of 1500 years (3000-1500 BC). The site is spread over an area of 50 hectares measuring 771m E-W and 617m N-S. The fortified town has three divisions viz, Citadel, Middle town and Lower town. The Citadel and Middle town have separate fortification. The well planned water harvesting system at Dholavira is considered as unique and first of its nature among the ancient civilizations of the world. The excavation has produced more than 55,000 antiquities of which hundreds of unique Harappan artefacts and 246 seals were recorded. Chrono-culturally, the long ceramic sequence in Dholavira (Stage I-VII), is broadly be grouped into four phases. Phase I represents stage I to II (Early Harappan) and Phase II represents Stage III, IV, and V (Mature Harappan), while Phase III is represented by stage VI (Transitional phase from Mature to Late). The terminal phase, i.e. Phase IV is represented by stage VII (Late/Post), altogether displays the origin, growth, zenith, and gradual decline of Harappans at the site.

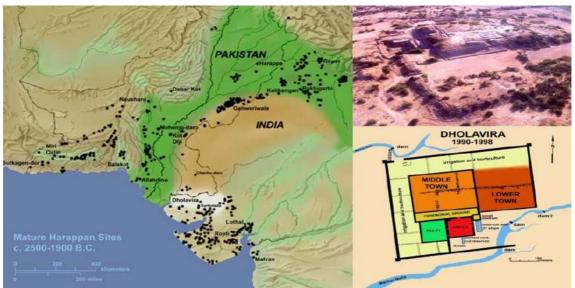


Figure 1: Map Showing the Location and Architectural Details of Dholavira (Bisht 2015)

Harappan Writing Media at Dholavira

Dholavira has produced a variety of writing material to include, sign board, stone inscription, seals, sealing, shell, faience, stone wares, tablets with markings, pottery and terracotta cake and discs display Harappan symbols (Figure 2). The unique 3 metre long Harappan signboard

(inscription) excavated from Dholavira consists of ten unusually large Harappan signs of white crystalline material (gypsum) lying in western chamber of the northern gate to the citadel. The signs were about 37 cm high and 25-27 cm in width, probably originally would have been set on a wooden board above the northern gate as a sign board of the city. Fragment of a sand stone bearing four Indus characters of 52 cm length, part of a lintel of a door are unique to its nature. The inscription seems to be broken from the left presumably four to five characters as evident from the fragmentary nature of the stone.

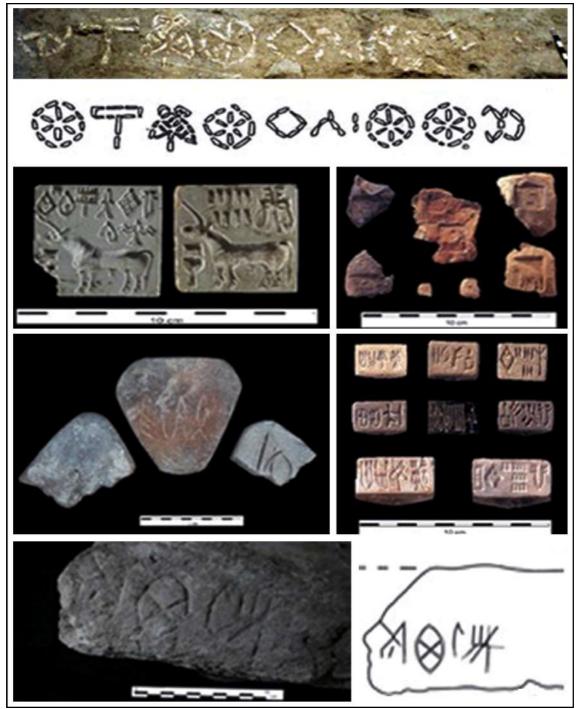


Figure 2: Variety of Writing Materials from Dholavira (Bisht 2015)

The third largest collection of Harappan seals (240) after Mohenjo-Daro and Harappa with a variety of inscription with and without animal motifs of unicorn, bull and elephant has been recovered from Dholavira. The clay sealings (70) recovered display the impression of more than one seal or the same one numerous times with variety of animals and human figure motifs. The extensive usage of scripts on the seals without animal motifs suggests an exclusive writing system for the Harappans. The high number of seals and sealings suggest the acceptance and usage by the people for regular transactions and communication. A variety of shell and faience bangles (Chevron and linear marks), inlays, beads and tablets with markings in addition to hundreds of terracotta and pottery graffiti with Harappan script and symbols suggest a literate Harappan society with script being exclusively used for communication at Dholavira.

Harappan Pottery Graffiti from Dholavira

The present study has documented 185 potsherds consist of both pre firing (69%) and post firing (31%) graffiti marks. Most of the pre firing marks are deep and sharp in execution while the post fired are shallow in nature. The marks are found mostly on vessels such as huge storage jars, medium to small sized pots, vase (rim, shoulder, just above base), dish (outside of brim, rim, and base), dish on stand, goblet (just above base, pedestal), shares slipped and un slipped surface cutting through the traditional wares categorization at Dholavira.

The nature (size, depth and sharpness) of the incisions suggests sharp instrument for the application of post fired graffiti while a relatively softer materials like shell, bone with a sharp or blunted edge may be preferred for a pre fired softer surface. Due to the hardened nature of the pottery after firing, only sharp instruments preferably of metal/stone can be used for leaving a scar or mark on the pottery. Most of the post-firing graffiti marks at Dholavira are thin and shallow in execution, supports the assumption. These post firing marks are either abstract signs or numerals or some other scripts material suggest either identification mark of its owner or the content of the vessel; normally written on the shoulder, handle or on the upper body parts.

The pre firing marks (preferably potters mark) mostly found either on the upper mouth portion (rim or brim) or on the base or just above the base of a vessel, suggest the work of a potter during or after potting before it dries out, preferably on a wet/leather hard stage. When a vessel is formed, all parts except rim and base or just above base go through transformation process of beating, paddling, scrapping and body building. The rim and base are modelled together or separate, either luted or paddled go through less alteration compared to body, is the only safe place left for a potter to execute during its making. Most of the pre firing marks at Dholavira are short and deep, either numeral, straight and slanting strokes evoke a probable function or identity of a vessel, may be used for storing or transporting. However, no strict pattern or modes of execution of the symbols are followed at the site.

Based on the nature and theme of the depiction graffiti marks at Dholavira are categorized into Abstract signs (8.77 %), Geometric signs (22.87%), Numerals (29.24 %) and other Indus symbols (39.04%). The abstract signs consist of patterns like checker, chevron, up and down arrow, cross hatch, fan, tridents and other complex signs used to convey ideas or message, while the geometric signs to include circles, circled plus, diamonds, squares and triangles with and without dot at the centre, cruciform, zig zag and crisscross patterns. The numerals include vertical and or slanting strokes of equal length and breadth vary from one to six arranged either in a single row or double rows. In case of double rows the length of the strokes are found ¹/₂ to

the single rows, mostly found either on the brim or just above the shoulder. The remaining symbols are categorized as other Indus symbols that include strokes and other linear signs, curves, cups, humans and other living beings.

These symbol/scripts are found either as single, compound (two signs) or inscriptions (above two signs). The single signs are found on bottom of the vessels while the upper rim and shoulder portions carry more than one symbol, mostly numerals. The inscriptions are rarely found, either on the body just above shoulder, base, or on the brim of huge storage jars or vessels. The pre fired inscriptions are small and normally stamped, contain three to four symbols. The post fired are comparatively larger (4-6 symbols) inscribed may be by the owner during the course of its usage. Though, the fragile nature of the pottery stops us from getting long inscriptions, ordering and position of repeated signs suggest the practice of writing long on pottery. Examples of broken inscriptions with similar pattern have been recovered from Dholavira, which need further study in comparison with other excavated sites to establish the phenomena.

Distribution of Harappan Graffiti at Dholavira

The phase wise distribution (Figure 3) suggests an unusual representation for stage I and II as no samples were reported. Here, one need to understand the lesser excavated nature of stage I and II and the very thin deposit of <30cm (confined to citadel, inside semi-circular houses only) available for Stage VII. Among the samples available for study, stage V (44.02) and VII (1.12%) records two extreme ends of high and low. A gradual rise and fall of the total percentage of graffiti through various phases (Stage III to VIII) is observed with stage IV and V (79.04%) together dominates the total assemblage.

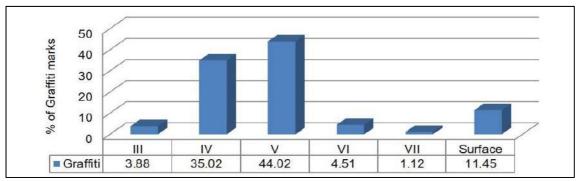


Figure 3: Phase wise Distribution of Harappan Graffiti at Dholavira

The distribution chart (Figure 4) suggests the difference in concentration of various symbols. Stage IV and V suggest similar pattern of distribution whereas stage III, VI and VII hardly display any consistency (Figure 5). The most consistent symbols categories throughout the occupation are the numerals and other Indus symbols. The abstract symbols started emerge in stage IV and is confined to the urban phase of occupation. Among the symbols volume metric signs are the most common like 'V' and numerals, suggest the importance of count and measure, an indirect indication towards the urban trading nature of the settlement.

Major Graffiti Marks and their Features

Dholavira has produced a total of 66 Indus signs /symbols in the form of pottery graffiti. All random unclear marks, broken symbols or parts of letters has been discarded as it misleads in

identifying and attributing them into any specific category. Out of which 40 are pre-recorded signs (Mahadevan 1977) consist of primary signs (21) and variants (19). A total of 26 new Indus signs different from Mahadevan have been recorded. These symbols are either abstract or geometrical signs intent to convey some specific meaning and are recitative. These symbols have been arranged in table format after considering its features and variant forms. A comparative display with symbol frequency has been displayed for ready reference.

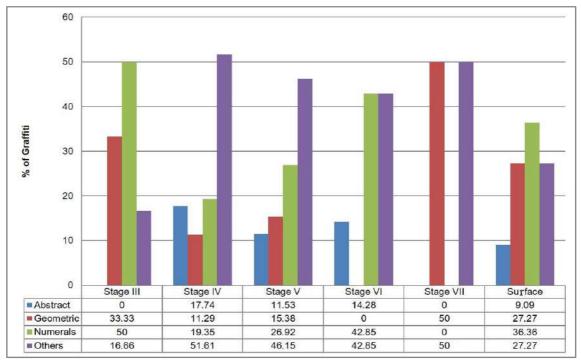


Figure 4: Chart Showing Phase and Symbol wise Distribution of Harappan Graffiti at Dholavira

Inscriptions stamped either at the bottom of the vessels or on the shoulder/body deserve special mention. The signs vary from three to five symbols in vertical alignment give an effect of a short inscription probably who used (owner) or name of the trader/organization associated with the content of the vessel. Similar inscriptions have been reported from Mohenjo-Daro (Mackay 1938: 183), Harappa (Kenoyer 2006: 25), Rangpur (Rao 1938), Lothal (Rao 1985: 459) and many more sites need to be studied with its actual context to understand the content of the inscriptions. A few examples of similar nature have been recovered from Dholavira which is included for ready reference. Out of the nine inscriptions recovered, red ware fine goblet with three Indus symbols stamped at the bottom (just above base) is unique. This is the second time that a goblet with stamped inscriptions at the bottom has been reported after Mohenjo-Daro. The triangular terracotta cake with three symbols (comb, jar and a fish) and other broken potsherds with three to five 5 symbols suggest the clarity of writing and the mediums preferred by the Harappans at Dholavira.

Discussion and Conclusion

Harappans had a definite writing system, equipped with both perishable and non-perishable materials. Among the media preferred, pottery proves to be more than worth with tremendous potential. Its enormous availability, easy to write and store, lack of preparation methods required before writing against other perishable materials, make them a popular medium for

writing. The study had documented 185 Harappan graffiti marks which include 9 inscriptions and 66 Harappan symbols/scripts. Out of which, 40 are pre-recorded signs (Mahadevan 1977) consist of 21 primary signs with 19 variants. The remaining 26 are newly recorded from Dholavira. These are either abstract or geometrical signs intent to convey some specific meaning or message, often found in single character. The compound signs suggest the repetitive nature of an alphabetic script.

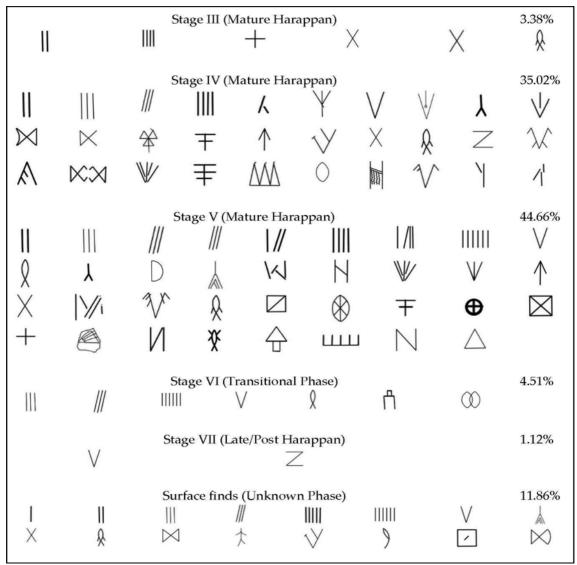


Figure 5: Phase and Symbol wise Distribution of Harappan Graffiti at Dholavira (Courtesy: ASI)

The inscriptions scratched on pots before or after firing may contain the details of the designated content, capacity or ownership of the vessels. No specific graffiti associated with any particular vessel or fabric has been noticed at Dholavira. Numerals profoundly found along with chevron and 'V' marks are the characteristic feature of the Harappan Graffiti at Dholavira. Vessels with more than one graffiti mark suggest the multi users/owners or reuse of the vessels. The occurrence of graffiti marks at Dholavira are not random, can be clustered into different phases/period suggest elementary change in application and style. A gradual rise and fall of the total percentage of graffiti through various phases (Stage III to VIII) is observed with

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Figure 6: Variety of Graffiti Marks from Dholavira (Courtesy: ASI)

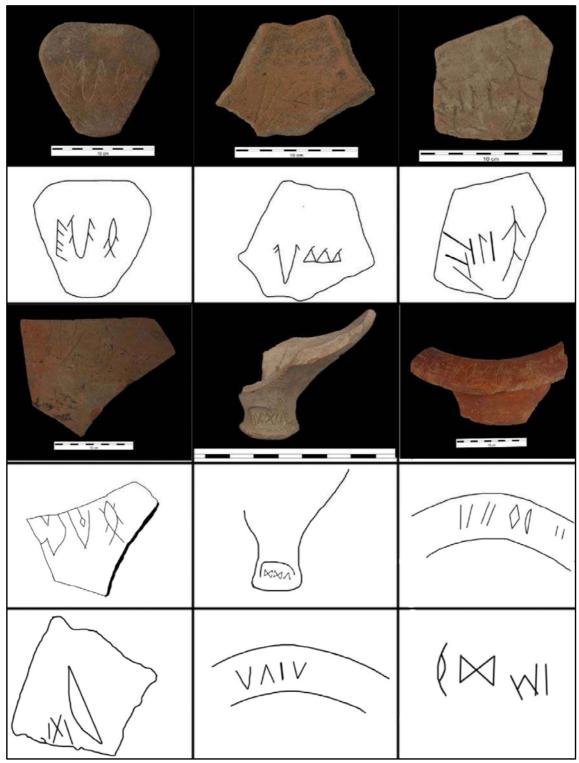


Figure 7: Pottery Inscriptions from Dholavira (Courtesy: ASI)

stage IV and V (79.04%) together dominates the total assemblage, represents the Mature phase of habitation at the site. A combined attempt on graffiti marks from different sites belong to different phases of Harappan and other chalcolithic cultures offer tremendous scope in understanding the evolution of Harappan script and its decipherment. Though pottery graffiti

bears short and fragmentary information, due to its abundance, variety, and workmanship, holds the key in unlocking the mysteries of Harappan writing system.

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I thank the permission and support granted by Archaeological Survey of India for studying the ceramics of Dholavira and greatly remember the help rendered by Dr. R. S. Bisht and the Excavation Branch, Purana Quila, the charge officer Pandeji (SA), Ambily C. S., (Asst. archaeologist) and Subhash Parmar (charge officer Dholavira report writing section and support staffs). The analysis was carried out at IIT Gandhinagar as part of my PDF programme. The financial assistance and help rendered by IIT Gandhinagar and its faculties Prof. Michael Danino, V. N. Prabhakar, Alok Kumar Kanungo and S. P. Mehrotra are deeply acknowledged.

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Applied Chemistry and Chemical Engineering, Volume 4

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processes in polyphenylene oxide in the				
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Gurgenishvili,				
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Chapter 4 22 pages			
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Chapter 6 13 pages	6	
Cross- linking of epoxy- isocyanate mixtures in the presence of hydroxyl- acrylic oligomer	te in e	
By Ostap	0	
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Bogdana	1	
Bashta,		
Olena		
Shyshchak	ak,	
Jozef		
Haponiuk,	k,	
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Abstract

Part II|71 pages

Computational Approaches

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Abstract

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optimization and genetic algorithm in			
modeling and simulation of the riser			
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By Sukanchan Palit			
Abstract			

Abstract

Chapter 9 3 pages	
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Abstract

Part III | 126 pages

Clinical Chemistry and Bioinformatics

(Chapter 10 21 pages
	Biochemistry
6	apps as
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E	By Heru
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	Chapter 11
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	Yetgin,
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(Chapter 12
	30 pages
1	Adsorption of DNA on Silica,
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	By Senem
	Yetgin, Devrim
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1	Abstract
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	42 pages
ł	Chermal Dehavior
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Part I	v 83 pages
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Chapter 15 17 pages			
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Gossamer Reveries

Poemsby Elizabeth Kuriakose

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Editor's Note

Editing Gossamer Reveries, the poetry collection of Mrs. Elizabeth Kuriakose, better known as Cynthia, was a wonderful experience which came my way most unexpectedly. Ajaiyabhas sir, her husband, whom I have never met in person, but with whom I am quite familiar, thanks to the stories my father told me about his 'college buddy', came up with the plan of publishing a collection of his much-adored wife's poetry on the occasion of her birthday on 19 September. And it was over a casual conversation between him and my father that Ajaiyabhas sir suggested I edit the volume. And "the most important thing", he told me, "is... It's a secret... because it is meant to be a surprise for Cynthia". And that was the thrilling part of the project – being a part of Ajaiyabhas sir's surprise birthday gift for his beloved wife.

Gossamer Reveries is the first poetry collection of Mrs. Kuriakose. The work reveals an unparalleled clarity of thought and lucidity, which not only makes the poems readable but also turns them into a pleasure for the heart and the soul. The themes span a huge spectrum, ranging from love and loss to issues that plague the world today. In a way, the poems belong to the confessional mode, talking about deeply felt emotions and experiences from the vantage point of the 'I'.

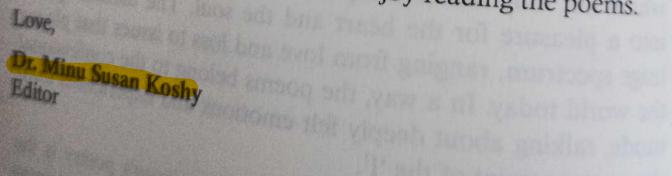
One of the most striking features of Kuraikose's poetry is the way the suspense is held till the end. Her poems derive meaning not only from the individual verses but from their totality. While the themes bedazzle, the structure as a whole is no less engaging. Most of the poems appeared on the poet's social media pages and they have been culled out painstakingly by her husband. So, some social-media-specific elements had to be modified during the editing process. However, a set of poems under the title

ELIZABETH KURIAKOSE

#And, has been incorporated as they are, under the title #And, has been incorported way social media has shaped the "Hashtag "And" Verses". The way social media has shaped the "Hashtag "And" verses". course of her development work is perhaps symbolic of the pages of the book. Kuriakose's work is presence felt all of the book. Kurrakoset making its presence felt all over the world.

The decision to not divide the poems into categories is a The decision to not that the themes overlap and I strongly conscious one, given of a poetry collection lies in its flexibility, or its 'waviness', so to say. The poems have been arranged in a roughly chronological order that would reveal Kuriakose's development as a poet while at the same time ensuring that they engage the readers' senses in more ways than one. Since the collection is meant to be a birthday surprise for the poet from her husband, the editing had to be carried out without the poet's engagement. As such, there might be lacunae, which I hope, shall be pardoned by the reader as well as the poet.

On the whole, Gossamer Reveries, is a poignant collection of poems which not only reveals the poet as an individual but also portrays the world as it is. I hope you enjoy reading the poems. a sure and the soul. The means pairs



Contents

Editor's Note	7
I. JEE	21
2. The Day I Fall in Love with You	22
3. A Memory	23
4. You	24
5. Salad	26
6. Auf Wiedersehen	28
7. In the Hands of a Brown Ahmad Mohamad	29
8. Pull the Plug	30
9. Dinner	33
10. Footprints in the Sand	34
11. Sun Roof	36
12. Corners	38
13. Love Long Lost	39
14. A Second Chance	40
15. Passion	41
16. Fifty Plus	42
17. Waiting	43
18. My Love	44
9. Let Not Us Part	45
0. Homecoming	40
 Dearest Jeevan – My Husband 	4

M

. ELIZABETH KURIAKOSE

72. Fragment 1 – Untitled	
73. Shades	12
74. Flight	12
75. Fragment 2 - Untitled	Iz
76. Yearning	12.
77. Hues of your Love	12
78. How?	12
79. I Await	12
80. Love/Lust	12
81. Noose	129
82. A Little Blue A Little Love	13(
83. Verses	13]
84. Heartbreak	132
85. Amavasya	133
86. Wombs Scarred	135
	136
87. As You Shut Your Eyes	
88. Haiku – 5-7-5 89. Sorrow	137 138
M	
	139
1. Moon	140
2. A Mother to her Child	141
	144
ricuding I	
A Love Ner	
A Love Note in the Waves	146
	148
	149

9

· GOSSAMER REVERIES ·

97. A Day	150
98. Till I Wear Green Again	152
99. A Baby Poem	153
100. Words	155
101. Appetiser	156
102. Breakfast Today	157
103. Pleasure	158
104. Karma	160
105. Lulling you to Sleep	161
106. Sometimes	162
107. Last Night's Dream?	163
108. Back to Nursery Rhymes	164
109. In the Confines of Your Arms	165
110. For whom this heart doth beat?	166
111. When Lovers Become Strangers	168
112. He Only Takes	170
113. Time	172
114. A Peaceful Death	173
115. Death	176
116. The Messengers	177
117. Endings	179
118. Falling in Love with a Phantom	
119. Chi hua hua	181
120. Words Unbound	184
	186
121. Morning Walk	100

Scanned with ACE Scanned

. ELIZABETH KURIA

	AKOSE	
122. A Smile		
123. To God		
124. Epiphany	and the second sec	187
125. Mistakes	and a second s	189
126. Musings in Chennai		189
127. Nights		190
128. On Writing a Poem		[9] [9]
129. Nameless Yearnings		明
130. If Only		194
131. Moving On		195
132. With the Shadows Gone		196
133. A Rainy Day	Tan Ngha's Lincaline	198
134. Wayfarer	Control Manager Russian	199
135 Defilation	V und' do zendnos ah si a	200
136. Sleep		201
137. Writing	26 amoast manal had a 2	202
138. Positive	tailo Traco 2	203
139. Benedictions	2	205
140. A Last Hun	2	207
141. Death Com		08
142. Hide and Seek		09
144. Melancholia		11
145. Crucifixion	and the second	12
146. Cremation		13
and		14

147. What are You to Me?	216
148. When Love Ceases	217
149. Bapu	218
150. My Trail	219
151. Battle-Ready	220
152. Black And White	221
153. If For A Day	224
154. Some Deep Blue Nights	225
155. Silence	226
156. Stark Realities	227
157. Adultery	228
158. Let Love Overcome	230
159. Alien Love?	232
160. The Moon Gone	233
161. On Poetry	some sol salignment at 234
162. Were You Ever Real?	236
163. Undo	annual a to specific and 237
164. I Stepped on Your Tears Too	day 238
165. Limp in the Rain	239
166. Rendezvous across Seasons	240
167. Warnings That Were Naugl	ht 241
168. Grey	242
169. Learning To Rhyme	243
	244
	246
171. A New Love Song	210

CapsLk

l

A

U

J

M

· ELIZABETH KURIAN 172. To Say "I Love You"	OSE
173. Silence in Solitude	William .
174. Vestiges	
175. Touch me in Love	24
176. Deafened	24s 24s
177. Hugs	25
178. Silence Speaks	25
179. December	252
180. Memories	254
181. A Lone Ember	255
182. The Touch	256
183. Finding Me	258
184. Dirty Linen	261
185. Hello Sun	262
	264
186. An Incomplete Sentence 187. The Mehtrani	265
188. The Silon	266
188. The Silence of a Lifetime	267
189. When the Prince Came for Me 90. Anywhere, Anytime	269
91. Ohlini	271
91. Oblivion in the Morn 92. Sometimes, I Need to Get Away from Me 93. Ardhanareeshwara 94. Set Me Free	272
93. Ardi	273
94. Ser A. Ser A. Ser Away from Me	274
Being Free	2/4
6.D. Dond	410
Sester Blue Skies	276
	277
	278

· GOSSAMER REVERIES ·

D

S

251

252

2.54

55

6

3

197. Lest We Forget	279
198. As Memories Await	280
199. Impolite Death	281
200. The Tree and the Leaf	282
201. Hashtag "And" Verses	283
202. Whispers of the Heart	292
203. Can I Be a Rose	294
204. Away from it All	295
205. Reservations	297
206. Chaotic thoughts	299
207. Butts Galore	300
208. Stye	301
209. How Do I Sleep Again?	302
210. Hope	303
211. Eyes	304
212. All that is Left	306
213. No, Not a Product of Sin	307
214. Crush Me Not	308
215. Remembrances	309
216. "It's Over"	310
217. (Do You) Matter (?)	311
218. Encounters	312
219. Rape	313
220. A Note of Gratitude	314
21. Dream Castle	
	315

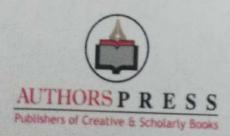
J

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· · · KO ·	
222. New Year Cheers	
223. My Birthday Wishes to Keralam	1
224. Then	31
225. When a Frown Met a Smile	318
226. Pangs	321
227. Desolation	321
228. A Poem Aroused	322
229. Your Agony	323
230. Where Reality Meets Fantasy	324
231. Waves	325
232. Does A Name Mar	326
232. Does A Name Make A Difference?	328
233. Let me die whilst my nights are still young	329
	330
235. The Obituary Column	331



Elizabeth Kuriakose, aka, Cynthia, is an emerging Indian poet, whose poems carry with them an old-world charm colluding with the new technological world. Born in Kerala, she spent a substantial period of her life in various places across India, including Patna, Bhubaneswar and Kolkata. She was employed at the State Bank of Travancore for over two decades serving in various capacities in almost ten branches over the course of her career. A woman of enterprise, she is an entrepreneur running a business in the bustling city of Trivandrum in collaboration with her husband. Her personal experiences have shaped her as a poet and her poems revolve around various themes ranging from domesticity to concerns pertaining to the world as a whole. Kuriakose is, what one could call, a cosmopolitan poet. She is also an animal-lover and her house is home to rescued and adopted animals, including 7 dogs. She is married to Mr. Ajaiyabhas B.G, who was also employed at the State Bank of Travancore where the two of them met, and who continues to be a pillar of hope, love and strength for the poet. They have two children, a son and a daughter, who, the poet says, are great sources of support and inspiration for her. Gossamer Reveries is her first collection of poems.







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സമരപഥങ്ങൾ അൾത്താരയാക്കിയ സമർപ്പിതജീവിതം അഡ്. ജോയ്സ് ജോർജ്ജ്	ഫാ. ജെയിംസ് പൊന്നമ്പേൽ സംരക്ഷിക്കാം നമൂക്ക് പരിസിഥിതി കണ്ണിലെ കൃഷ്ണമണി പോലെ ആർ. മണിക്കൂട്ടൻ 4	ം പ്രമാസ് പ്രത്യം പുര നിറഞ്ഞു നിൽക്കുന്ന പൂരുഷന്മാർ: ഒരു പ്രതിവായന സഭയും സമരവും	റോസമ്മ സെബാസ്സ്വൻ പട്ടയസമരങ്ങളിൽ ശക്തികേന്ദ്രമായി ആനിക്കുഴിക്കാട്ടിൽ പിതാവ് ഫാ. സെബാസന്ത് കൊംസംസക്കൽ	നല്ല ക്രിസ്ത്യാനികുടുംബം സ്വർഗ്ഗരാജ്യത്തിന് സദൃശ്യമാകുന്നു ഫാ. ജോസഫ് കൊല്ലക്കൊമ്പിൽ കൂടുതൽ ഇരുളിലേയ്ക്ക് പോകെ ഒരു കൈത്തിരി വെളിച്ചം	വിദ്യാഭ്യാസമേഖലയിൽ ആനിക്കുഴിക്കാട്ടിൽപിതാവിന്റെ സംഭാവന <i>മാർ ജോൺ നെല്ലിക്കുന്നേൽ</i> 3	മൗലവ്ഥ മൂഹായദ ഗഫ്ഷം അതം-ലോഗഗം ഏലമലക്കാടുകളിൽ കാറ്റു പിടിക്കുമ്പോൾ കെ. കെ. ദേവസ്യ	മൂന്നാർ പരിസ്ഥിതി: ചരിത്രവീക്ഷണം ജിജോ ജയരാജ് മലയോരവഴികളിലെ അതിജീവനപോരാട്ടങ്ങൾ	ഇടുക്കി രൂപത വളരച്ചയുടെ പടപംയം തയാങ പൂണ്ടെ ഡോ. ജോർജ്ജ് തകിടിയേൽ ഇടുക്കി: ബഹുസ്വരതയുടെ സ്വന്തം നാട് ജിൻസി മരിയ	2 ഹൈറേഞ്ച് കൂടിയേറ്റത്തിന്റെ ചരിത്രവഴികൾ ഡോ. സൂനീഷ് കെ. കെ.	ആശ്ണി മുനയ്ന മലയോരമണ്ണിൽ തണൽ വിരിച്ച ആത്മവൃക്ഷം പിൽസൺ ചേന്നപ്പാടി	കർഷകമനസ്സുള്ള പച്ചമനുഷ്യൻ കെ.എസ്. <i>ഫ്രാൻസീസ്</i> കർഷകർക്കൊപ്പം ധീരമായി	മണ്ണൂം മനുഷ്യനും: ഒരു ദൈവജ്ഞന്റെ ജീവിതദർശനം
203	198	187	175	162 169	153	143	127 136	114 124	102	16	06 88	
ആരാധനാദൈവശാസ്ത്രത്തിന്റെ ആഴങ്ങളിലേക്ക് ഡോ. പോളി മണിയാട്ട്	മാർ മാത്യു ആനിക്കുഴിക്കാട്ടിൽ ഹൈറേഞ്ച് സംരക്ഷണസമിതിയും ഭൂപ്രശ്നപരിഹാരശ്രമങ്ങളും മാർ മാത്യു ആനിക്കുഴിക്കാട്ടിൽ	ഷ്യലമലകളും കർഷകരും മുല്പപ്പൊർട്ടും മാർ മാത്യ ആനിക്കുഴിക്കാട്ടിൽ പട്ടയവും കസ്തുരിരംഗൻ റിപ്പോർട്ടും	മാർ മാത്യൂ ആനിക്കുഴിക്കാട്ടിൽ ഉത്തമവിദ്യാഭ്യാസത്തിന്റെ പ്രസക്തി മാർ മാത്യ അനിക്കാഴിൽ	വിശ്വാസപരിശീലനവർഷാരംഭം 2016–17 <i>മാർ മാത്യൂ ആനിക്കുഴിക്കാട്ടിൽ</i> വിദ്യാഭ്യാസവും വിശ്വാസപരിശീലനവും	മാർ മാത്യു ആനിക്കുഴിക്കാട്ടിൽ പ്രൈസ്തവജീവിതം സഭാത്മകം മാർ മാത്യു ആനിക്കുഴിക്കാട്ടിൽ	കുടുംബപം നേരിടുന്ന വെല്ലുവിളികൾ കുടുംബപം നേരിടുന്ന വെല്ലുവിളികൾ	കുടുംബം സമാധാനത്തിന്റെ വിദ്യാലയം മാർ മാത്യു ആനിക്കുഴിക്കാട്ടിൽ	ജിജി ജോർജ 5 ഇടയലേഖനങ്ങൾ ഒരവലോകന്നം ഡോ. പോളി മണിയാട്ട്	പരന്ഥ്വത്വ വളാംപത്രംം. ഋഷി ഹൈറേഞ്ഞിന്റെ ഉന്നതവിദ്യാഭ്യാസം	സന്ത്രോഷ് ജോഗംജ് സഭയ്ക്കൊരു ഇടുക്കി മോഡൽ ഫാ. ടോമി ലൂക്ക ആനിക്കുഴിക്കാട്ടിൽ	മലനാടിന്റെ കാർഷികസംസ്കൃതി: പ്രതിസന്ധികളും പ്രതീക്ഷകളും ജോസ് ആന്റണി ഉയരം കൂടുമ്പോൾ ടൂറിസത്തിന് സ്വാദ് കൂടുമോ?	
23	290	282 286	276	267 271	263	255	244	242	237	229 235	jo 210 219	(B)

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118



കൾ തക്കതായ പ്രാധാന്യം അർഹിക്കുന്നു.

A DA

കേന്ദ്രികരിച്ചാണ് പ്രധാനമായും മൂന്നാർ പ്രശസ്തിയുടെ പടികൾ കയറി തപ് ചർവ്വമായ വളർച്ച ബ്രിട്ടിഷ് ആധിപത്യത്തിൻ കിഴിൽ മൂന്നാറിനെ കേന്ദ്രി ഹിങ്ങളും മിത്തുകളും നിറഞ്ഞു നിൽക്കുന്ന കണ്ണൻദേവൻ മലനിക്കളെ **സ്ഥാപര**്യാപ്തമായ ഒരു പ്രദേശമായി മാറിക്കഴിഞ്ഞിരുന്നു. നിരവധി ഐതി ശിക കരങ്ങളിലെത്തിച്ചേർന്നപ്പോൾ അന്നൂവരെ കണ്ടിട്ടില്ലാത്തത്ര അഭൂത **കരിച്ചുകൊ**ണ്ട് ഉണ്ടായി. വളരെ ചൂരുങ്ങിയ കാലം കൊണ്ടുതന്നെ മൂന്നാർ **യത്. അതുകൊണ്ടുതന്നെ മൂന്നാറിനെപറ്റിയുള്ള ഒരു പഠനത്തിൽ ഈ മല**നി പോ ഗോത്രദരണം രാജഭരണത്തിനു വഴിമാറി, ശേഷം അധികാരം വൈദേ

സഞ്ചാരകേന്ദ്രങ്ങളിലൊന്നാണ് ഇന്ന് മൂന്നാർ കാടൂം കാട്ടരൂവിയും ഉന്ത്യയിലെ, പ്രത്യേകിച്ച് കേരളത്തിലെ ഏറ്റവും പ്രധാനപ്പെട്ട വിനോദ റിലെക്കാകർഷിക്കപ്പെടുന്നതിൽ അത്ഭൂതപ്പെടാൻ യാതൊന്നും തന്നെയില്ല പുത്തുലയുന്ന കുറിഞ്ഞിപ്പുക്കളും മലഞ്ഞെരുവുകളിലെ വിസ്മയകാഴ്ച്ച പൂൽമേടും കോടമഞ്ഞും തണുപ്പുമെല്ലാം ഇടുക്കിയിലെ മലയോരങ്ങൾ വിദേ ത്രിച്ചാർ ഇത്രിനോടകം തന്നെ കേവേളം പ്രത്തിൽ ഇടം നേടിക്കുന്ന ംബദേശികാധിപത്യത്തിൻ കീഴിലാണ്. വിനോദ സഞ്ചാരകേന്ദ്രമെന്ന നില ിതായില്ലേ ഇഡ്ലാൽ ത്രാതന്ത്രന്തെ ഉട്ടത്തലേത്തെ തേർ ഉറ്നേറ്റ് ഇന്ത്ര വിദേശിയരും സ്ഥദേശിയരും തദ്ദേശിയരുമായ ജനങ്ങൾ ഒരുപോലെ മൂന്നാ യൊരുക്കി വരയാടിൻ പറ്റവും മൂന്നാറിന്റെ മാത്രം പ്രത്യേകതയാകുമ്പോൾ **കിടക്കുന്ന** പച്ച മലനിരകളെ നീലക്കടലാക്കി ഓരോ വ്യാഴവട്ടം മോറും ശിയർക്ക് ഏറെ പ്രിയങ്കരമാക്കി തീർത്തു. നോക്കത്താദുരത്തോളം പടർന്നു

കുണ്ടള, കന്നിമല, നല്പതണ്ണി എന്നീ മൂന്ന് ആറുകളുടെ സംഗമസ്ഥല

മൂണാറും ഇന്ന് മാറിയതിന്റെ പിന്നിൽ അവരുടെ കസ്പേക്രമുണ്ട്. അവർ. ലോകഭൂപടത്തിൽ അടയാളപ്പെടുത്തപ്പെട്ട പ്രദേശമായി ഇടുക്കിയും ഡ്ഡ് പ്രത്യേഷ്യം പ്രത്യക്ത്രം പ്രത്യാനം പ്രത്യം പ്രത്യം പ്രത്യം പ്രത്യം പ്രത്യം പ്രത്യം പ്രത്യം പ്രത്യം പ്രത്യം മായ്ക്കാനാകാതെ അങ്ങനെ തുടരുന്നു. പ്രകൃതിയും ഈശംഭനും മനു അടയാള്ളപ്പെടുത്തിയ ചില ഈടുവയ്പ്പുകൾ ഒരു കാലവർഷത്തിനും ത്തിന്റെ മലവെള്ളപ്പാച്ചിലിൽ വലതും നാമാസശേഷമായി. പക്ഷേ ആഴത്തിൽ ത്തിന്റെ മലവെള്ളപ്പാച്ചിലിൽ വലതും നാമാസശേഷമായി. പക്ഷേ ആഴത്തിൽ യായ തലാനും പുഴവും അത്തിന്റെ അത്തിന്റെ ഇപ്പോഴും കാണാം കാണ്

മൂന്നാറിന്റെ മഞ്ഞണിഞ്ഞ മലനിരകളിൽ യൂറോപുൻ സംസ്കാര

119

മണ്ണൂം മനുഷ്യനും: ഒരു ഹൈവജംതന്റെ ജീവിതദർശനം

സംയം ഇതു നമ്മുടെ നാടാണ്, ദൈവത്തിന്റെ സ്വന്തം നാട്ട്. നിക്കാരം ഇതു നമ്മുടെ നാടാണ്, ദൈവത്തിന്റെ സ്വന്തം നാട്ട്

ACOMB CHOR

മുന്നാർ പരിസ്ഥിതി: ചരിത്രവീക്ഷണം

ചെയ്യുന്നു ആദ്ദ്ധാം. ത്രുക്കാരും ഉൾപ്പെടുന്ന ഹൈറേഞ്ച് മേഖലയിലെ ജനമയ്ക്ക് തുക്കാരും ഉൾപ്പെടുന്ന ഹൈറേഞ്ച് മേഖലയിലെ ജനമയ്ക്ക് ആുക്കാരും ഉൾപ്പെടുന്ന ഹൈറേഞ്ച് മേഖലയിലെ ജനമയ്ക്ക് ആുക്കാരും ഇൾപ്പെടുന്ന ^{നമു} മുതയവജ അവതലന്താം അറാമാനൽ ഡിട്ടസയം ഡിട്ടുന്നു. ചെതിഡ്ര് പ്രേഷ്യയം മേത്രമാനത്തിനെ പ്രായിന്നെ ഡ്രാമായിയെ സ്പ്പം വർഗ്ഗങ്ങേയം പ്രൂക്യങ്ങളായിലെ എവരേയും പുരുത്തം പുരുത്തം പുരുത്തം പുരുത്തം പുരുത്തം പുരുത്തം പുരുത്തം പുരുത്തം പു പുരുത്തം പുര See discussions, stats, and author profiles for this publication at: https://www.researchgate.net/publication/331276195

West Asian Ceramics at Vizhinjam

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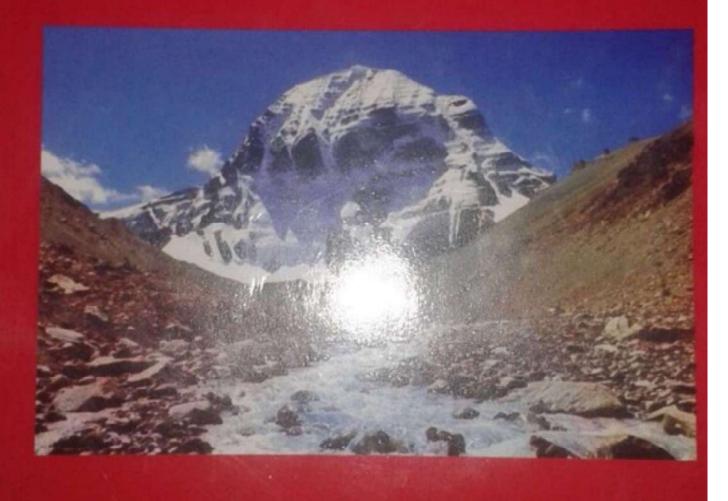
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Kailashnath Hefu

(Essays in Prehistory, Protohistory and Historical Archaeology)

(Festschrift to Shri, K. N. Dikshit)



Edited by Ajit Kumar, Rajesh S.V., Abhayan G.S.

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26. Megalithic Rock Cut Caves at Kuttikkol, Kasaragod District, Kerala: Archaeological Investigations in 2015	320
—Abhayan G.S., Ajit Kumar, Rajesh S.V., Akinori Uesugi, Yasuji Shimizu, Haseen Raja R., Ananthu V. Dev, Muhammed Fasalu K. M.S. Sujanpal and Renjinimol M.N.	
Part-V	
Early Historic	
 Early Historic Society as gleaned from Kodumanal Inscribed Potsherds Volume Matrix Method —K.Rajan 	329
28. Ornaments from Early Historic Gujarat	337
-R.N. Kumaran and M. Saranya	331
Part-VI	
Medieval	
29. West Asian Ceramics at Vizhinjam	351
-Ritvik G. Balvally, Ajit Kumar, S. V. Rajesh, V. Vinod and Abhayan G. S.	
30. Musket Balls, Mould and Containers from excavations at Kumbla Fort, District Kasaragode, Kerala	361
—Ajit Kumar	
Part-VII	
Exploration/ Excavations	
 Recent Findings of Archaeological Importance in Uttarakhand —Syed Jamal Hasan 	371
32. Recent Excavations at Ganeshwar-2013 : A Preliminary Report	384
-Ravindra N. Singh, A. K.Pandey, D.P.Singh, Gargi Chatterjee, P. Joglekar and S. Chakradhari	
 A preliminary report of scientific archaeological clearance at Changdev, District Jalgoan, Maharashtra 	398
-Madan Sing Chauhan and Tejas Garge	
Volume -II	
Part-VIII	

Bio-Archaeology

34.	Indian Fauna from Ancient Travel Accounts in Western Biology	415
	-P.P. Joglekar	
35.	Preliminary Identification of Archaeofauna at Juni Kuran, a Harappan settlement in Kachchh, Gujarat	423
	-Arati Deshpande-Mukherjee, P.K. Thomas and Shubra Pramanik	

West Asian Ceramics at Vizhinjam

29

Ritvik G. Balvally, Ajit Kumar, S. V. Rajesh, V. Vinod and Abhayan G. S.

1. Introduction

Vizhinjam/Vilinjam (08° 22.798" N; 76° 59.370" E), located seventeen kilometers south of Thiruvananthapuram, in the modern state of Kerala, was an international port of trade functioning from the Early Historic period to the modern times (Kumar *et al.* 2013). the material past of this deep sea harbour and is possibly identifiable with the 'Balita' of the *Periplus Maris Erythraei* (Schoff 1911: 235; Pillai 1932: 177 c.f. Kumar *et al.* 2013). This paper would deal with the study of the West Asian ceramics found from the site whilst appraising the role of the region in the global trade/exchange scenario.

2. Archaeology of Vizhinjam

Vizhinjam was under the political supremacy of the Ays chieftains, Cheras, Pandyas and Cholas (Kumar et al. 2013: 199). The excavations yielded three periods assigned to the site; Period I Early Historic and Medieval (1st AD 800 AD), Period II Medieval (800 AD 1500 AD) and Period III Medieval, Late Medieval and Modern (1500 AD 2012 AD) (Abhayan et al. 2014). Recently, among the seven radio carbon dates from the site; one dates from as early as 260-280 A.D. (calibrated-sample VZM-3) and the discovery of a Rouletted ware sherd further stake its claim as an Early historic site (Kumar et al. 2013: 197). The site had a

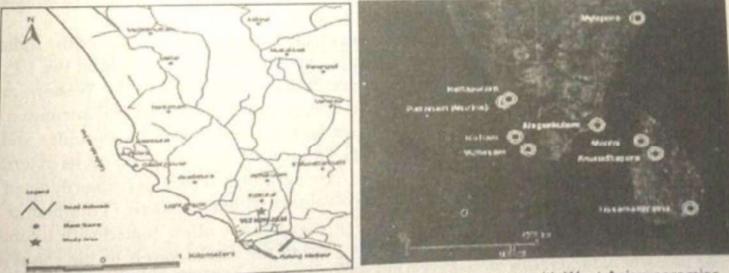


Fig. 29.1: Location of Vizhinjam (courtesy Kumar et al. 2013)

Fig. 29.2: Sites with West Asian ceramics in Peninsular India and Sri Lanka

fortification built with rubble, cut laterite blocks and mud as evidenced from the Mathilppuram locality at Vizhinjam (Kumar et al. 2013: 196). Vizhinjam apart from trade assemblages also showcases rock-cut caves (Sarkar 1978; Bernier 1982; Kramrisch et al. 1999), temples (Kramrisch et al. 1999; Sarkar 1978) and a hero stone (Rajesh and Kumar :171) all dated to as early as 8th c. A.D. and later. A Shiva linga was also found from the explorations again dated to around 8th-9th c. A.D. (Kumar et al. 2013: 99-100). The dwellings were apparently of perishable material (wood, thatch and tiles). An evidence of a small structure made of dressed laterite and undressed charnokite came up in the excavation. Apart from these evidences, coins (historicity yet to be identified), beads of glass and stone such as carnelian are again indicators of trade (Kumar et al. 2013: 99). Zoo-archaeological studies identified taxa; mammals like cattle/buffalo (Bos indicus/Bubalus bubalis), goat/ sheep (Capra hircus/Ovis aries), pig (Sus sps.), hare (Lepus nigricollis), dog (Canis familiaris), cat (Felis catus), Bandicota Rat (Bandicota indica), birds, turtle, fish and mollusks (Abhayan et al. 2014: 253). The studies also suggested major exploitation of the marine resources in Period I, more of Mammalian exploitation in Period II and dominance of shell and oyster but a drop in the number of fish bones (Abhayan et al. 2014: 259-261).

3. Ceramics

The ceramic varieties include, West Asian (Torpedo Jars 3rd c. A.D. onwards), Turquoise Glazed Pottery and Egg-shell ware (8th-9th c. A.D.), Chinese (Plain White wares -9th c. A.D.), Blue on White (12th to 18th c. A.D.), Celadon (11th to 12th c. A.D.) and a Pale Yellow crackled Ware with Blue Paintings, Burmese and East Asian (Thai and Vietnamese porcelain dated 14th-16th c. A.D.) and the European Pottery (Dutch and British porcelain dated 18th-19th c. A.D.) (Kumar et al. 2013: 197-199). In the first phase of the site, some pottery based on the varieties of embossing or paddle marks was characterized early. These are primarily Red wares which are similar in its typology and surface features to the ones found from Kottapattnam and Arikamedu and is dated to early Historic times at Kottapattnam and Arikamedu (Rao 2000: 94).

The ceramic evidence from Vizhinjam represents a wide variety of wares coming in from West Asia, China and parts of South East Asia. They also offer a wide chronological range attesting different spans in trade from Vizhinjam. The West Asian ceramic types from the site were identified, studied and special emphasis was given on the Torpedo Jars as they constituted majority of the West Asian pottery and also its distribution in India was less understood.

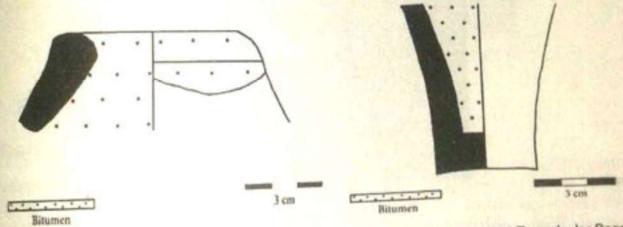
Torpedo Jars are West Asian transport vessels which constitute a major part of the Indian Ocean overseas trade assemblage from the early Christian centuries to at least the 10th c. A.D. Its spatial distribution in the Indian sub-continent is restricted to the Western and Peninsular coastline of India and Sri Lanka. Its nomenclature is derived and attributed to its shape. The vessels are thick-walled large jars having a gently sloping shoulder and a thickened rounded rim (sometimes triangular). Often ribbing is observed on its exterior These jars have no neck or handle to hold, and have a cylindrical base. It primarily acted a a container but is also reported from burials containing skeletal remains (Tofighian et al 2011; Debevoise 1934). The interiors of the Torpedo Jars are often coated with bitumer internally, which occasionally comes up to the parts of the rim or rarely to the shoulder The lining of natural resins on pottery is not restricted to Torpedo Jars but also observed in Roman Amphora from the eastern and western Mediterranean regions. Studies by severa

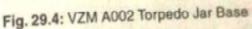
West Asian Ceramics at Vizhinjam

researchers suggest that these were used for carrying wine, fish sauce and other commodities researchers sugget (cf. Heron and Pollard 1988). There is also evidence for the lining of transport amphorae (cf. nine pitch from both pre-Roman (4th century B C - Post (cf. Heron and in pine pitch from both pre-Roman (4th century B.C.; Beck and Borromeo 1990) and with poman (7th century A.D.; Bass and van Doorninch 1000) with pine piner (7th century A.D.; Bass and van Doorninck 1982) contexts. Bitumen is the only post-Roman version has been applied on Torpedo Jars and no different resin has been so far identified resin that the bitumen served to leak-proof the commodities and the jars probably carried on them. (Simpson 2003) but residue analysis has been inconclusive.

4. Context and Quantification

The spatial distribution of the Jars in the Indian sub-continent is focused mainly on the western and peninsular coastline of India. Vizhinjam has shown evidence of Torpedo Jars from explorations and excavations along with an array of different ceramics. The Torpedo Jars have been found from the earliest levels of the site (in association with a Rouletted Ware sherd) going all the way to the early medieval period. More than 80+ sherds belonging to the Torpedo Jars have been identified from the excavation seasons (2011, 2012 and 2013). Torpedo Jars have been found from the earliest levels of the site (for trench wise cultural periodisation see Abhayan et al. 2014: Figure 4: 257). Two diagnostic sherds have been found; one rim (possibly Sasanian or Islamic as the distinction between has not been attested yet) (Fig. 29.3) and one base (Fig. 29.4). The bitumen from the Jars was sent for further analysis and results are awaited.







Three different fabrics of Torpedo Jars have been identified from within the assemblage at Vizhinjam. The dominant fabric is the beige fabric (2.5 Y8/3 - 2.5 Y8/4 core) which is medium to medium-fine1 in texture. The milky white fabric is similar to the Turquoise Glazed Ware (white page 2.5 Y2/9.5) and the third fabric (Fig. 29.5-29.6) is a pinkish ware with thick buff slip (7.5 R 6/8 core and 7.5 R 8/5 slip). The third fabric has been termed as the White Slipped Pink Ware in the Sanjan ceramic report (Nanji 2011) which is Torpedo Jars. All the fabrics have a medium to medium-fine texture. All the sherds have a powdery feel and have gone through decomposition due to the high salinity of the soil at Vizhinjam. Only a single sherd has a cross-hatched incision, which is pre-firing (Fig. 29.7).

Other identifiable wares of West Asia origin found at Vizhinjam are Turquoise Glazed ware and Egg-shell ware. Turquoise Glazed ware is characterized by their typical blue glazes

Kailashnath Hetu

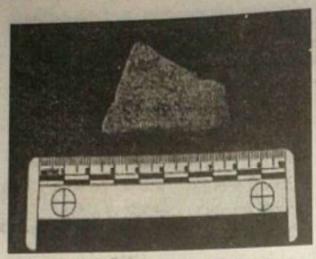


Fig. 29.5: Torpedo Jar sherd, pinkish ware with thick buff slip

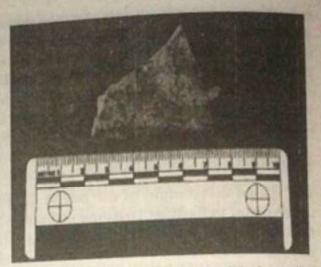


Fig. 29.6: Bitumen on interior wall

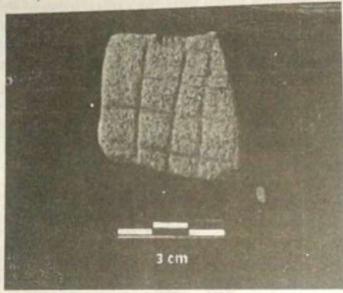


Fig. 29.7: Torpedo Jar sherd with incised design

but other colours such as shades of green and yellow are also observed (Kennet 2004 : 35-36). The glaze technology can be traced back to as much as 3rd c. B.C. in the Gulf (Mouton 1992: 148. Salles 1984: 248-50), and much earlier in Mesopotamia (Moorey 1994: 159-162). The production continues into the Sasanian and the Islamic period as well. Applique decoration appears around the 8-9th c. A.D. on this ceramic type (Whitehouse 1979: 881; Mason and Keall 1991: 52), examples of which are seen at Vizhinjam. The alkaline glaze is coloured by copper (Rye 1981: 46-47) the analysis of these ceramics from Vizhinjam through spectroscopic analysis yielded similar results (Nakai Personal Communication c.f. Kumar *et al.* 2013). These ceramics have a wide distribution from East Africa (Munro-Hay 1989: 315, Horton 1996: 274-277) to Japan (Glover 2002). The production centre suggested is Basra in Iraq (Mason and Keall 1991). The Turquoise Glazed ware recovered from the lower levels at Vizhinjam had darker shades while the upper ones had lighter shades (Kumar *et al.* 2013: 198).

Egg-shell wares are wafer-thin bodied fine wares. A single sherd (white page 2.5 Y 2/ 9.5) (Fig. 29.8) representing Egg-shell ware (buff) was found from Vizhinjam. This ceramic

West Asian Ceramics at Vizhinjam

type is datable to a period between 8th and 10th c. A.D. Egg-shell ware has been previously identified from Sanjan, Gujarat (Nanji 2011: 55-56). The sherd exhibits dot and circle decoration which along with deeply incised furrows is found at Iraqi sites such as Tulul al-Ukhaydir (Finster and Schmidt 1976: abb. 51d.) and al-Ukhaydir (al-Husseini 1966: pl. 15) and also at Suhar in Oman (Kevran 2004; Figure 25-4: 308; Plate 24-7:). These are chronologically earlier than the examples with flat rouletted panels as evidenced from the Ana sequence (Northedge et al. 1988: 82, 91-92, fig. 40 1-3). The vessel shapes are closed in nature: small jars, jugs and water filters. The production centres are most probably based

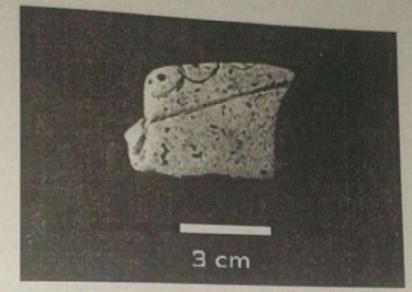


Fig. 29.8 : Egg-shell ware from Vizhinjam with incised design

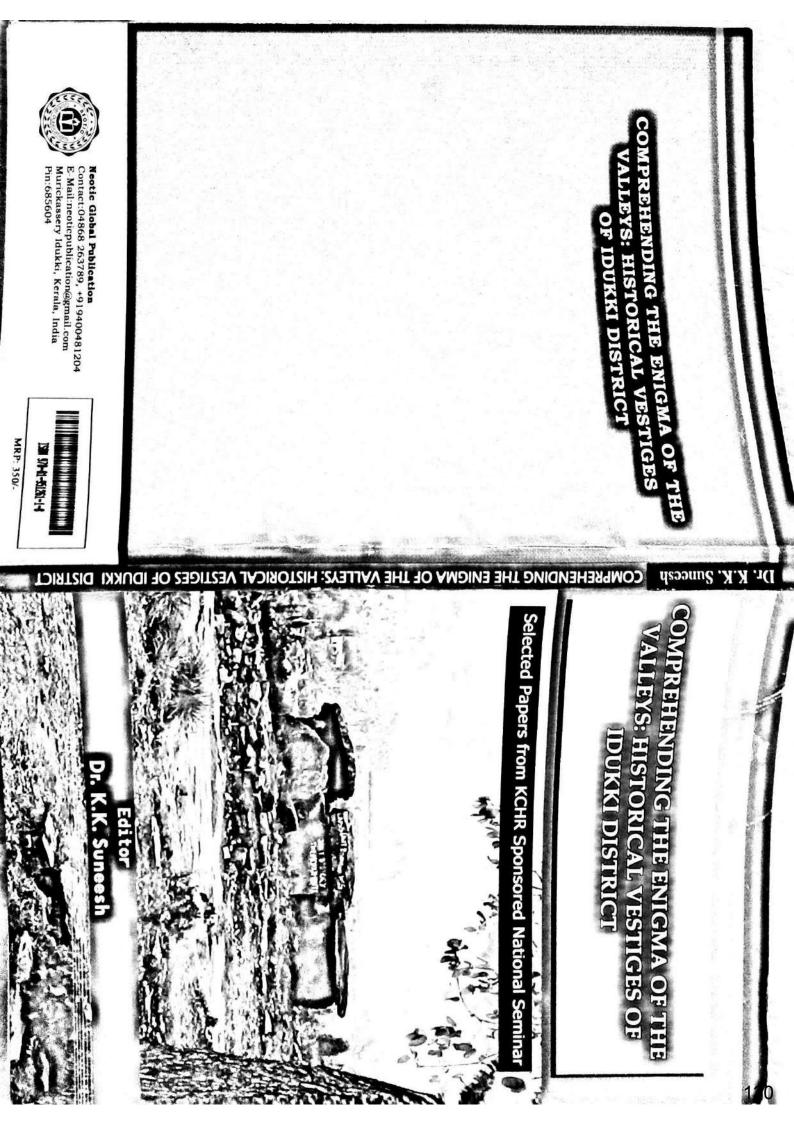
5. Thin-Section Studies

Sampling

Systematic representative sampling was done for the Torpedo Jar sherds from Vizhinjam as the identified ceramics were not available for thin-sectioning due to the smaller sample size. Out of a total of 80+ sherds, 23 sherds were selected. These represent almost all varieties available at the site from different levels. Some sherds were not utilized for thin-section studies due to their small size.

The Preparation of Thin-Section

The ceramics to be studied microscopically were cut manually with a saw with a rough dimension of 2cm length and 1cm breadth. These were then impregnated with '70 C cement'. One face of the sample was ground and polished on a rotating cast iron wheel and then on a glass plate using successively finer grades of carborandum powder lubricated with water. The specimen was carefully cleaned and transferred to another plate with the next finer grade of abrasive. The ground and polished flat surface was cleaned well, dried and cemented to a glass microscope-slide carefully avoiding entrapment of air bubbles using Canada balsam as the mounting material. Canada balsam is preferred because its refractive index is the same as glass and thus does not hinder the viewing of optical properties of minerals. After



Contents

ral Heritage of Kannan Devan Hills in Idukki District ^{Dis}	Kanchiyar Panchayath Ms. Sheebo George	Problems of Cardamom Cultivation in Idukki District a Special Reference to	Ms. Mariyat George	Tribal Art Forms in Idukki District: A Historical Overview	Mr. Santhosh George	Locating Cultural Histories of Mannan Tribe in Idukki District	Mr. Jijo Jayaraj	Tracing the Life World of a Tribe: The Muthuvan	Mr. Bibinmon Varghese	the Highrage of Idukki	People of Protest: The history of unending fulmination in	Dr. Jobi John	Catastrophic Effects of Landslide and Floods in Idukki District	Ms. Jency T.	Kallar Pattam Colony	Migration to Idukki: A study on the Emergence of	Dr. Dibu Avirachan	in Idukki District : A Case Study of Devikulam Taluk	Exploring Local History - Tamil Labour Migration and its Impact	Mr. Bibin Raveendran	An Insights from Petroglyphs	Reinterpreting the History of Rock Art in Marayoor:	Dr. K. K. Suneesh	Towards Eviction: The Problem of Idukki	Ms. Sandra M S	Investigation of Megalithic Remains in Udumbanchola Taluk	Prof. S. Sivadasan	Development and Gross National Happiness	Western Ghats Ecology Panel (WGEEP) Report, Sustainable	Prof. Pius Malekandathil	High ranges and Trade in Pre-Modern Kerala
181-202	169-180	e to		154-168		136-153		119-135		110-118			105-109			88-104			80-87			60-79		50-59		40-49			28-39		1-27

Preface

There is little authentic knowledge about the ancient history of Idukki region The urn burials in the high ranges that date back to the megalithic period are the sole indication of human presence over the region. The rock art in the Anchunad Valley has the depictions of the material life and culture of the prehistoric and megalithic periods. These petro graphs, petro glyph and dolmens and other remains of Mesolithic and Megalithic cultures of the Valley help us to reconstruct the history of the prehistoric and megalithic people. They give us an insight into the mental world of the prehistoric and megalithic people's imaginary relations, fantasies and social milieu of ideas and institutions.

percent of the total population of the district tribal communities in the district are Muthuvans, Hill Pulayas, Mannans, Uralys The tribes lost their land and dwindled in numbers and now they constitute only 20 migration enhanced tremendously displacing the aborigines or adivasis of the area there occurred a migration of settlers to this region and during the 1940s this British era opened roads to this region and commercial plantations began to sprout Malai Arayans, Ulladans, Palliyans, Malavedans and Mala Pandarams. Once the second highest proportion of tribal population in the state. The numerically dominant Idukki District. The most characteristic demographic features of the district is its entire Kerala is living at Kovilmala of Kanchiyar Panchayat in Udumbanchola Taluk of the district. Binu Raja Mannan, the one and only one King of Tribal Kingdom in the tribes and tribal ambiguittes exist. There are 245 tribal settlements in the District of According to the latest Census around 11516 Scheduled tribal families are living in remote hilly banks and in the deep interiors of thickly growing forests of this district. Udumbanchola Taluks. Almost all the scheduled tribes are living in the extreme which 74 are in Thodupuzha; 11 in Peermedu; 126 in Devikulam and 34 in Idukki is the second largest place in Kerala where the most number of scheduled Idukki is the home land of numerous tribal communities of South India

The capital-oriented production led to extensive forcible relocation of the poor tillers of the soil towards the plantation regions like Idukki and Wayanad from the erstwhile native state of Travancore. The marginalised peasantry of Travancore had no

Proceedings: KCHR Sponsored National Seminar

Page i

Mr. Juo Javataj

(Assistant Prof on Contract Dept. of History Pavanatma College, Murickassery]

Abstract

underprinted in the Muthuvan's life Colonnal times. This article attempts to articulate the social and cultural structures discourses by The historical records about the adivasis were constructed as a part of the official abot from the mainstream population and had followed peculiar life world practices torest of these regions from predustoric period onwards. In the early days they kepi idukki district is the abode of many adivasis population. They lived in the interior the imperial government. This process continued during the posi-

Keywords

Matharan tube adivasi colonialism modernity-kani-kudi-culture-tradition-matrilineal

settlement

Introduction

of the government damaged their custom and native every form of technology identifies of the group. The process got accelerated in 20th century and every attempt society is forcibly imposed on the adivasis. Department augmented the process. The modernity as supposed by the modern influx of the outside population towards the forest. The establishment of the Forest inhabitants of the hill ranges for many years. But this process got disturbed with the and rituals and differed in many ways from that of others. They were the original way of life. Like every other tribal groups, the Muthuvans also followed their customs script ^a Now most of them are following Malayalum script. The adivasis had specific language was closely allied with Tannil, with a few Malayalam words. But it has no community Once the Muthuyan had a dialect of own (Enavan peach).² Their dwellers of the land. Colonialism remained a watershed in the history of the of the tribal settlement has own beliefs, traditions, language, culture etc. The intervention of modern frends and education exploited their traditions of the original According to the Census in 1991, 50269 is the tribul population lives in Idukki 1 Most Idukki is the district with second largest tribal settlement in Kerala The result was the loss of inherent

culture is got diminishing, they love and respect and tried to protect it I tried to highlight the diminishing culture of Muthuvans. Even though their

Muthuvan Social System and Clan Administration

Kingship

honour. His wife also has power among women centre of all kudies. He is called 'kani'? The head would have special position and kudi decides the life style of them. The entire kudi selects a head. He will be the The Muthuvan society is divided into number of kudis. The head of each

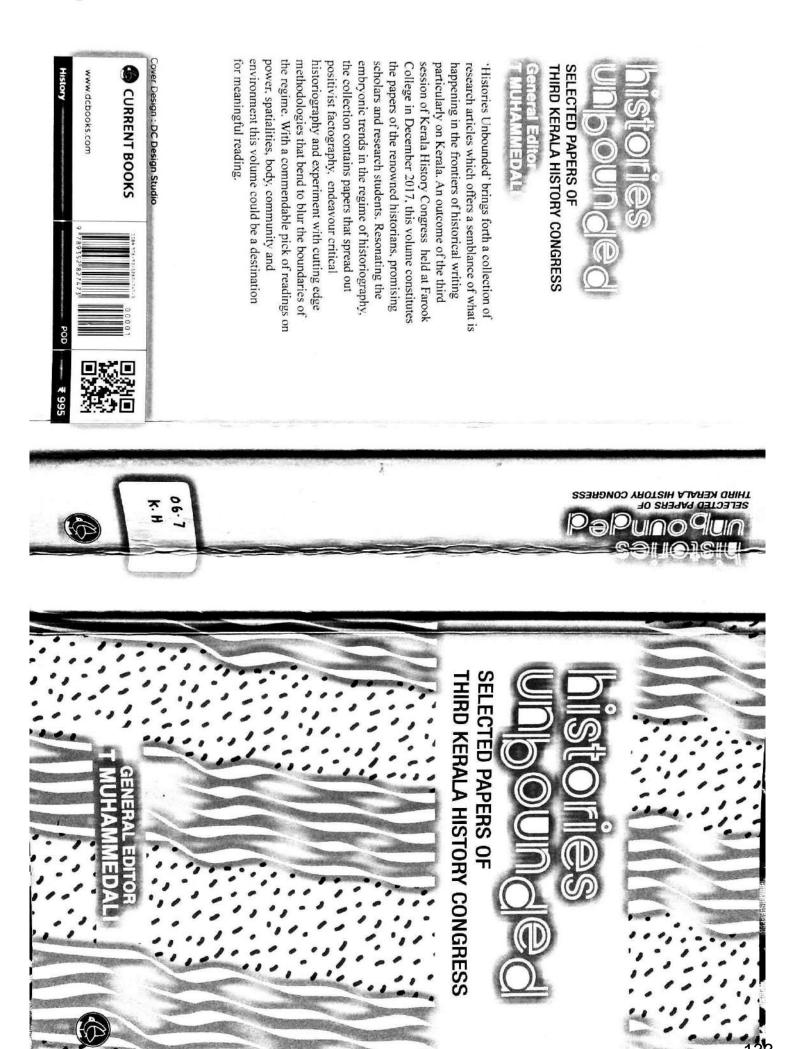
courage the kani should have knowledge in medicine, incarnation, the faith in do work for the public welfare without any favour. No one has authority to question has to lead the people in cultivation, birth, death, religions, marriage etc. He has to religious matters etc. Kani has a wide and vast power among the Muthuvans Kani forest officers adopted courage as a measure of the selection of kani Beade of this Muthuvana did not like the outsiders. They were introverted in character courage to speak to the forest became the kant of Muthuyan Commonly hereditary system. The selection of kant is very lucid. The Muthuvan who has much in one family. But the law of Aani introduced by the forest officers changed the muthan and muthi. "The position of muthan and muthi is hereditary it is specialised intervention of forest officers changed the name into kani. So it abolished the name the kani. Because the kani is acting according to the interest of all Muthuvans In the beginning the head were called muthant and muthat But the direct So the 17

Panchayam

not allowed the women to make opinion in panchayam. Muthuvan consider kan as also participate in the panchayam and support in the process of decision making it is clan are the key positions in panchayam. Other prominent members of the other kady the Muthuvana accept the decision o panchayam mainly the members of the same the right for panish them, I the person cannot give a good explanation. Generally, all Audy rules, they would be called up and asked for explanations. The panchayan bas Muthuvana are different in their own rules and regulations. If anyone regulated the the kudy is known as panchayam, it is called the decision taking body of Muthuwana Panchayam^w is he meeting of Muthuvans with concerned representatives from

page 119 Proceedings: NCHR Sponsored National Seminar

Page 120



Medical Missionaries and Women Empowerment In Coloniau Kerala: A Brief Survey Sindhu Thomas
Changes in Kannan Devan Hills Jijo Jayaraj
The Planter Raj and the Tamil Labour: History Landscape and
Trees Becoming Timber : The Scientific Gaze of the Europeans Lekha Pillai
Women's Liberation: Views of Makthi Thangal Dr. Fukkar Ali C. A
Engaging with Culture: Experiences of Communism and Church in Kerala Heidi Sande Mariam
Movement Dr. Biju R. I
Locating the Empire in the Ideological Perspective of the Scout
Communalised Politics In Modern Kerala Dr. Aneesudheen P. K.
From A Juridical Authority To A Juridical Subject Emy Merin Joy
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Concept of Political Authority in Islam: A Khaldunian Perspective Kunhusoopy. M

Reni Anna Philip
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Sir Cp And The Travancore Royal Family: A Bond For Socio- Cultural Progress In Travancore

The Planter Raj and the Tamil Labour: History Landscape and Changes in Kannan Devan Hill Jijo Jayaraja

Introduction

of Indian tea in England. Indian tea scored over Chinese tea, which was growth of tea plantations in India were the result of a rise of popularity In others their markets lay in the developed colonising countries. The raw material for western industry, especially for the colonising country was mainly for export. In some cases they were established to provide Historically the plantations were a product of colonialism. Their product necessitated large areas of cultivable land and large labour force. popular in England in the early nineteenth century. The plantations However, the areas suitable for the plantation were initially sparsely scenic beauty and commercial viabilities. A concession was already of Travancore by Ward, Connor and Munro discovered a new land with common system. Similarly the colonial explorations of the high range shortage. They had to depend on the migrant labour, whose migration populated. Hence the plantations faced the problem of acute labour through the Scottish merchants and labour harnessed from the Tami What they need was only capital and labour. Capital was accumulated achieved from the local chief (Kerala varma Valiya Rajah of Poonjar the slave labour. After the abolition of the slavery, 'indenture' becames had to be induced by the planters. The early plantations were run by search of job in the colonial cinchona, coffee and tea plantations. ambitious migration towards the high ranges was by the labours in low country, which was the only access of the area. However the first

The organization and management of the plantations in India was in the model of the plantations in West Indies, South America and Africa. They called this peculiar situation as a 'plantation system'.' The plantes ruled his estate as a 'small kingdom'.' The two important peculiarities of ruled his estate as a 'small kingdom'.' The two important peculiarities the plantation were, firstly the existence of a large number of resident immigrant labour force known as indentured labour³ and secondly the employment of large number of male and female workers, generally on employment of large number of male and female workers, generally which a family basis. The plantation system adopted a 'feudal model' which

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424

The Planter Raj and the Tamil Labour: History Landscape and Changes...

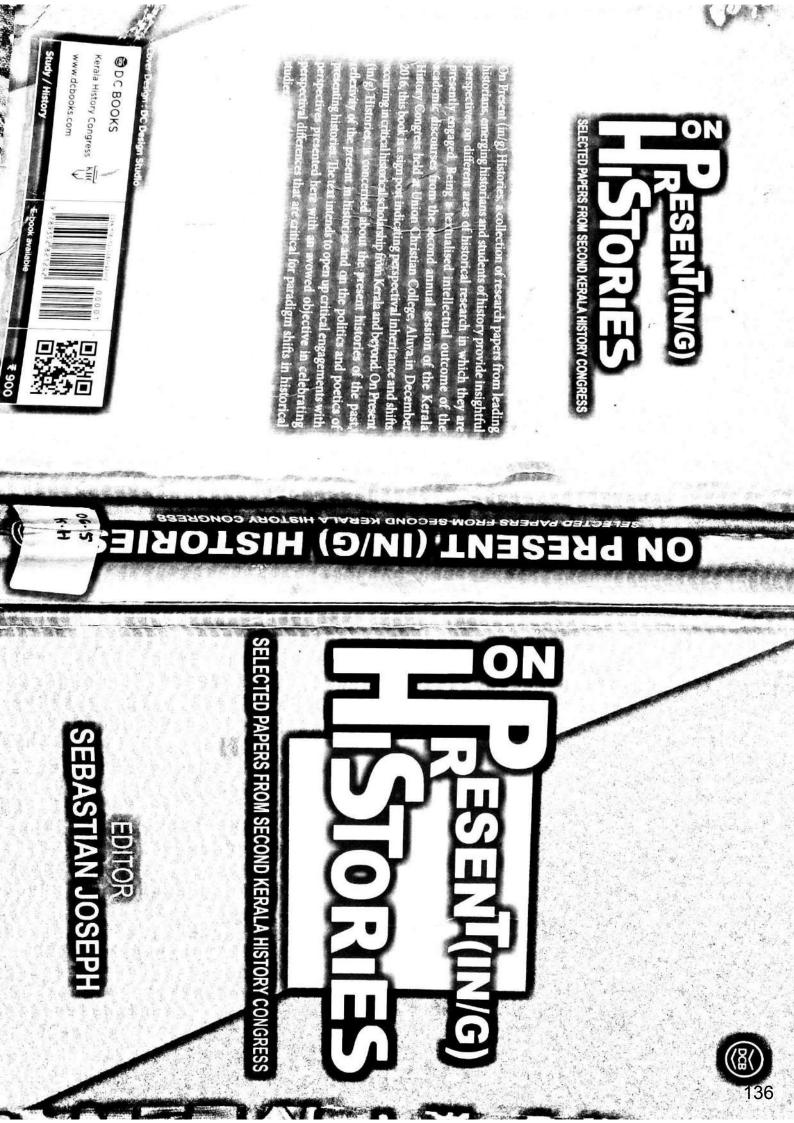
was prevalent in medieval Europe.' The estates were considered as a semi autonomous space within the state. The planters discouraged the interference of the state, because any state legislations or interventions interference of the labour costly. The workers constituted the poor Tamil shall make the labour costly. The workers constituted the poor Tamil shall make the labour costly. The workers constituted the poor Tamil shall make the labour costly. The workers constituted the poor Tamil shall make the labour costly. The workers constituted the poor Tamil shall make the labour costly. The workers constituted the poor Tamil shall make the labour costly. The workers constituted the poor Tamil shall make the labour costly. The workers constituted the poor Tamil shall make the labour costly. The workers constituted the poor Tamil shall make the labour costly. The workers constituted the poor Tamil shall make the labour costly. The workers constituted the poor the shall make the labour costly. The workers constituted the poor the shall make the labour costly. The workers constituted the poor tamil shall make the labour costly. The workers constituted the poor tamil shall make the labour costly. The workers constituted the poor tamiles will be poor the state.

and uncertain the labour conditions were more pathetic. The workers In Assam, the labours to their planter masters. The tea plantation in India were bonded labours to their planter masters. The tea plantation in India was closely associated with the abolition of slavery and sanctioning of was closely associated with the abolition of slavery and sanctioning of indentured labour.⁵ Labour was unavailable in north India, because the indentured labour.⁵ Labour was unavailable in north India, because the own paddy fields. They were reluctant to come as wage carners in the gardens and believed that it may affect their social status.⁶ The British gardens and believed that it may affect their social status.⁶ The British garden in the plantations. They increased the land revenue to more labour in the plantations. They increased the land revenue to more than thirty percent on the poppy growers and banned the cultivation of certain local crops. And by these actions the white planters aimed to create a group of landless starving peasants.⁷

The workers preferred to work in the other sectors where wages were higher than those of the tea estates. Thus the planters brought several thousand workers from other parts of Bihar, Madhya Pradesh, Uttar Pradesh and from South India, to work in the tea gardens that were newly started at Assam and Bengal.⁹ In the tea plantations, the labour was akin to the worst form of scrfdom than slavery. The coolies were given the status of neither slaves nor serfs and constituted a newly emerging working glass of Assam.⁹ A tea garden worker was treated like criminal by his master. The planters themselves held the trials and carried on the punishments in the form of flogging and imprisonment. The workers entirely depended on their European masters. A 'maibaap' relationship developed between worker and the management.⁴⁰ The master may either just or tyrant, the worker has no chance to seek

Justice from this oppression and they suffered in silence. The planter's authority prevailed over the district administration. The civil and judiciary gave all possible support for them. These functionaries of the state never interfered with the internal administration of the estates. There were labour instructions in the law, but it remained only in paper. There were resistance from the side of labourers and the absence of evidences prevents us from providing a

435



ence period (With special reference to Mannappedi) Sivadasan T. P
Joshy Mathew
Colonial Policies and Land Alienation of Tribal People in Kerala 1800-1947
French Mahe and Its Hinterland as Gleaned from Eighteenth Century Maps and Plans Joy Varkey
Conflict with the Game: 'Shikar' and the 'White'Coloniser Jijo Jayaraj
Knowledge, Hegemony and Medicine: The British in Malabar Vinodan Navath
South Indian Brahmin Identities in early Modern Dutch Mission- ary Literature <i>Meera G. M</i>
Of Texts and Practice and Also of Discourse and Deviance; An Outline of the Regulation of Bodies in Medieval Kerala Malavika Binny
A Travancore Model in Disaster Management: Ducebat Viam for the Current Times Sebastian Joseph and Lekha Pillai
Donation and Patronage in the Syrian Christian Church Susan Thomas
Interrogating Cultural Nationalism: Imagining the 'New' Indian Woman Sheeba K. M

Deepna K
Kings, Gods and Spaces of Exchange: Patronage to Pre-Modern Kerala Temples
Malappuram Balasubrahmanian Urunian Kuth
Social Reflections in the Funeral Songs of the Kanakkas of
A Study on the 18 th Century Tellicherry Arun Thomas M
Lijo Sebastian
Temple Entry Movement in Aranmula
Thunjath Ezhuthachan – A Spiritual And Literary Figure In Kerala Shika E
Anu Mariam Ninan
Land Documents of Ancient Churches and Its Role in the Agrarian Economy of Kerala
Teaching History; Tariq in Madrasa Textbooks Anas Ali
Problems in Fixing the Reign of Sthanu Ravi Aneesh S
Tintu K. J
Merchants, State and Society: An Analysis of the Syrian Christian and the Jewish Copper Plates (C. 9 th – 13 th Century)
Peasanti Movements III North Maladar (1990-47) Vijayan K
From Class Consciousness to Organization: A Case Study on

Conflict with the Game: 'Shikar' and the 'White' Coloniser

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Hunting was an activity that More's fellow Englishmen held to be so delicious and so expressive of power, that it was reserved for riding through the countryside on horseback in search of game.¹ The early planters were keen hunters and destroyers of game.¹ This points to the essence of their enterprise as planters which was to destroy the jungles and create plantations in its place. They engaged in constant battle with nature to bridle and tame it. The hunter by killing the game was asserting his domination over the nature. The trophies that hang on the walls of the museums and clubs represent the force of destruction happened in the past.[•]

The forest mountains of Travancore was very rich with wide variety of forest flora and fauna. Those hill and forest tracts afforded some of the best sport as elsewhere in India. In the words of some of the eminent white shikaris, it was the abode of 'large game'. In the words of Samuel Mateer, the author of 'Native Life in Travancore', "the sportmen and the naturalist will find an endless variety in the fauna; elephants and tigers, for instance so numerous in some parts that the hillmen are obliged to build their huts on tops of trees - wild oxen and deers, monkeys crocodiles, snakes, birds, fishes and insects".² Thus from the early time hunting played a major role in the lives of the people of the high range. Animals were hunted by them for food and at the same time they were worshiped them on the other side. But when the plantation industry spread through the jungles the nature of hunting

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Conflict with the Game: 'Shikar' and the 'White' Coloniser

danged and became a blood sport and shikkar became one of the main recreations of the planter. At the turn of the century shikar differed vastly and went on to some extent large scale slaughter. It differed vastly and as a 'capital sport'.³

The Physical Position of the Hill

The ruy second provided into the North Travancore are situated on the southern the high ranges of North Travancore are situated on the southern boundary of the Coimbatore District, in the Madras Presidency, and are divided into the higher and the lower ranges; the latter, lying to the westward contain the famous teak forests; their average elevation is not more than 2,000 feet above the level of the sea, with peaks and ridges rising to 4 and 5,000 feet. The whole of the lower range, with the exception of a few bare and rocky peaks, is covered with dense forest containing much valuable timber; whereas the higher range lying to the eastward consists of extensive open grassy hills and valleys with shola forests similar to those on the Nilgiries and Pulnies, varying in elevation from 6,000 to 8,000 feet and upwards, above the sea level.

The range is only separated from the Pulnies, which lie to the eastward, by the valley of Ungenaad; this valley is not more than 12 or 15 miles across in a straight line; its western end is shut in by two blocks of well wooded mountains with plateaus on their summits forming a connecting link between the Annamullies and the Pulnies.¹ The general trend of the Highlands is N.N.E. and S.S.W., the highest elevations being to the north-east and to the south, gradually decreasing in sloping undulating hills towards the west, excepting the Anaimudi mountain and its plateau; which is situated at the extreme south west end of the range.

Colonel Hamilton of Madras Army visted the hills in 1863 and he was so excited on seeing the area magnificent splendor this grand mountain, standing out alone as it does amongst smaller hills no doubt appears higher than it really is. Viewing it from several points, comparing it with Nilgherries, Hamilton was in the opinion that it is the most lofty on the Annamullay Range, and it may perhaps prove to be a rival even to Dodabetta, as considered