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FOOD AS CULTURE: INFLUENCE OF COLONIALISM ON THE KOCHI CUISINE

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ABSTRACT

This paper explores the cultural transformation of Kochi's cuisine under European colonial rule, focusing on the influence of Portuguese, Dutch, and British food practices. Employing a culinary historiographic method, the study integrates archival sources, oral traditions, and ingredient-origin mapping to trace how colonial encounters reshaped local food identities. It highlights the introduction of New World crops like chilli, tomato, and cashew by the Portuguese, the Dutch legacy of baked goods like breudher, and the British integration of bread, tea, and Anglo-Indian curries into Kochi's urban diet. The study introduces the "Gastro-Colonial Fusion Index" (GCFI) as a novel metric to quantify the extent of cultural blending in key Kochi dishes. Findings underscore food as a living archive of colonial interactions, revealing both culinary enrichment and socio-economic divides. The paper positions Kochi as a gastronomic palimpsest where colonialism continues to flavor local identity.

Keywords: Kochi Cuisine, Culinary Colonialism, Portuguese Influence, Anglo-Indian Food, Food Heritage, Gastro-Colonial Fusion Index (GCFI)

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Highlights

- Introduced the Gastro-Colonial Fusion Index (GCFI) to quantitatively assess cultural hybridization in Kochi's colonial-era cuisine.
- Portuguese-influenced dishes exhibited the highest fusion intensity (GCFI = 4.7), especially in curries and breads.
- Strong correlation (r = 0.76) found between oral histories and archival records, affirming narrative consistency in culinary memory.
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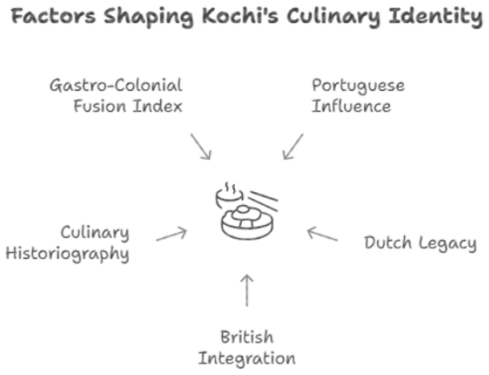
GRAPHICAL ABSTRACT



1. INTRODUCTION

Kochi, located along the southwest coast of India, stands as a historical crossroad of global maritime trade and colonial contestations [1]. Its cuisine, deeply rooted in the indigenous traditions of Kerala, has undergone profound

transformations under successive colonial influences [2]. The Portuguese, Dutch, and British not only introduced new governance and trade systems but also deeply impacted local agricultural practices and foodways [3]. As a result, the culinary landscape of Kochi evolved into a complex fusion of native ingredients and colonial techniques, revealing how food serves as a cultural marker of power, adaptation, and identity [4].

The Portuguese were the earliest European colonizers to arrive in Kochi in the late 15th century [5]. Alongside establishing spice trade routes, they introduced a suite of New World crops such as chili, tomato, and cashew nut, which soon became staples of the local cuisine [6]. These ingredients not only altered the flavor profiles of traditional dishes but also influenced agricultural patterns in the region [7]. The replacement of black pepper with chili, a spicier and cheaper alternative, marked a major culinary shift in Kerala's kitchens [8]. Such introductions reflect how colonial intentions, rooted in commercial gain, had unintended but lasting cultural consequences [9].

The Dutch, who succeeded the Portuguese in the 17th century, further influenced Kochi's cuisine, particularly through bakery traditions [10]. Dutch settlers and missionaries popularized wheat-based breads and pastries, such as breudher, which are still baked in Anglo-Indian and Christian households in Fort Kochi today [11]. This transformation from rice-dominated meals to wheat-based supplements reflected both dietary assimilation and socio-political aspirations [12]. Consuming colonial foods often symbolized modernity and class distinction, especially among urban elites who sought to mimic European lifestyles [13].

British colonialism brought with it further culinary hybridization, especially the introduction of institutionalized tea culture, bread factories, and the codification of "curry" as a dish acceptable to both British officials and Indian cooks [14]. Anglo-Indian cuisine, a hybrid food tradition born in colonial households, became a tangible expression of cultural negotiation [15]. Bread and cake became morning staples, while curry, once regional and varied, was adapted to British palates with reduced heat and added creaminess [16] [17]. These transformations further widened the culinary gap between rural and urban populations, revealing the socioeconomic stratification under colonial governance [18].

As this paper demonstrates, the evolution of Kochi's cuisine through the colonial period is not merely a story of ingredient substitution or recipe modification. It is a story of cultural negotiation, economic coercion, and identity formation. By examining food as both a cultural artifact and a colonial outcome, this study positions Kochi as a microcosm of broader global processes. It offers a lens into how foodways reflect and reproduce power dynamics, and how culinary memory continues to bear the imprint of empire.

1.1. CONTRIBUTIONS

The novel contributions of this study are:

1) Introduces the Gastro-Colonial Fusion Index (GCFI) as a novel method to measure cultural hybridity in Kochi's cuisine across Portuguese, Dutch, and British colonial phases.
2) Reveals how specific colonial food practices—such as baking (Dutch), spice adaptation (Portuguese), and hybrid curries (British)—permanently altered Kochi's food identity and socio-economic class distinctions.
3) Establishes food as a cultural archive that preserves colonial narratives, demonstrating how daily meals continue to reflect historical power relations in modern Kochi.

2. LITERATURE REVIEW

The literature on culinary transformation reveals how food serves as both a cultural artifact and a site of colonial negotiation, yet studies specific to Kochi's colonial gastronomic evolution remain limited. Table 1 shows Summary of Research Gaps in Culinary Colonial Studies.

Laurent et al. (2025) [19] emphasized how culinary practice embodies the tension between innovation and tradition, where food habits adapt to changing times while still anchoring themselves in local identity. This idea resonates with how Kochi's cuisine integrated colonial ingredients like chili and bread without erasing its coastal heritage.

Tanaka et al. (2024) [20] demonstrated how fermented food consumption influences development, reminding us that food, beyond being cultural, has intergenerational physiological impact—particularly relevant in understanding how colonial diets altered health narratives.

Das et al. (2025) [21] examined Anglo-Indian recipe diaries to decode how hybrid culinary identities both reflected and negotiated colonial legacy, which directly parallels Kochi's Anglo-Indian food traditions.

Chattopadhyay (2024) [22] explored "bottlekhanas" as colonial spaces of hidden food power, linking architecture, servants, and imported food—a spatial aspect mirrored in Kochi's colonial homes.

Herbert et al. (2025) [23] revealed how disgust politics shaped British food adoption, selectively rejecting condiments like chili sauce—a colonial irony considering Kochi's modern dependence on it.

Vijayaraghavan and Chattaraj (2024) [24] emphasized the significance of oral food narratives and evolving recipes in preserving cultural memory, which underpins this study's use of oral histories.

Seal (2025) [25] analyzed fusion cuisine as a key component of gastronomic tourism in Kolkata—findings applicable to Kochi, where food heritage has become central to its postcolonial cultural identity and tourism economy.

Table 1 Summary of Research Gaps in Culinary Colonial Studies

Ref. No.	Author(s) & Year	Focus Area	Identified Research Gap
[19]	Laurent et al. (2025)	Tradition vs. innovation in Japanese cuisine	Lacks geographic and cultural extension to hybrid colonial cuisines like Kochi's
[20]	Tanaka et al. (2024)	Fermented food intake and child development in Japan	Focuses on health impact, but doesn't address colonial origin or socio-cultural food transformation
[21]	Das et al. (2025)	Anglo-Indian recipe diaries and identity	Centers on hybrid identity, but doesn't quantitatively analyze cultural fusion in regional cuisines
[22]	Chattopadhyay (2024)	Colonial food architecture (bottlekhana)	Limited to spatial and material culture; doesn't explore food adoption and transformation in local kitchens
[23]	Herbert et al. (2025)	British culinary adaptation and disgust politics	Ignores South Indian food responses and local agency in reshaping rejected condiments
[24]	Vijayaraghavan & Chattaraj (2024)	Oral narratives and food historiography in Asia	Strong narrative base but lacks empirical models like indices to assess food hybridity
[25]	Seal (2025)	Fusion cuisine in gastronomic tourism (Kolkata)	Does not apply to southern India; lacks focus on historical continuity and culinary colonial layers

2.1. RESEARCH GAPS

Despite the growing body of literature on culinary history and food culture, several research gaps persist in the context of colonial influence on regional cuisines like that of Kochi. Existing studies often emphasize either traditional food practices or modern health impacts of dietary habits, but few explore how colonial food systems have shaped long-term culinary identities. While hybrid cuisines such as Anglo-Indian food have been documented, there is limited quantitative assessment of cultural blending across multiple colonial layers—Portuguese, Dutch, and British—in a single locale. Architectural analyses of colonial food spaces provide valuable spatial insights but do not sufficiently connect these with actual food transformations at the household level. Moreover, studies rooted in oral traditions and recipe narratives lack structured analytical models to evaluate cultural hybridity. Culinary tourism research tends to highlight fusion cuisines in northern and eastern India, leaving regions like Kochi underexplored, particularly regarding how colonial-era food legacies influence current identity, taste preferences, and gastronomic practices.

2.2. PROBLEM STATEMENT

While Kochi is globally recognized for its rich cultural diversity and heritage cuisine, academic discourse often underrepresents the depth of colonial influence on its culinary identity. Existing studies focus broadly on Indian food culture or on colonial history but seldom bridge the two to understand how colonial encounters shaped everyday food practices in Kochi. Furthermore, there is no standardized method to measure the degree of cultural fusion in cuisine.

This paper addresses that gap by proposing the Gastro-Colonial Fusion Index (GCFI) as an analytical tool to examine how European colonialism permanently transformed Kochi's culinary landscape—through ingredients, recipes, social dining customs, and economic food hierarchies.

3. OBJECTIVES

The novel objectives of this study are:

1) To analyze the impact of colonial powers on the traditional food practices and ingredient base of Kochi, Kerala.
2) To trace the historical introduction and integration of New World crops, European culinary techniques, and hybrid dishes in Kochi's food culture.
3) To develop and apply the Gastro-Colonial Fusion Index (GCFI) to quantify the degree of colonial-cultural influence in selected Kochi dishes.
4)

3.1. RESEARCH QUESTIONS

1) How did Portuguese, Dutch, and British colonial powers individually and collectively influence the ingredients, preparation methods, and food consumption patterns in Kochi's cuisine?
2) What role do oral histories, community recipes, and family food narratives play in preserving and transmitting colonial-era culinary legacies in Kochi?
3) To what extent can the proposed Gastro-Colonial Fusion Index (GCFI) effectively quantify the cultural hybridity present in selected Kochi dishes resulting from colonial encounters?

4. RESEARCH METHODOLOGY

Figure 1 illustrates the methodological framework employed in this study, structured across four sequential yet interconnected phases. It begins with archival research, which involves analyzing colonial trade records, missionary accounts, and historical cookbooks to trace the introduction of foreign ingredients and culinary techniques into Kochi. This is followed by the collection of oral histories and recipe narratives from traditional households and community elders in Fort Kochi to capture lived culinary experiences and intergenerational food memories. The third phase, ingredient-origin mapping, systematically traces the geographical and cultural provenance of key ingredients introduced during Portuguese, Dutch, and British rule. Finally, these qualitative insights are synthesized into the Gastro-Colonial Fusion Index (GCFI), a novel metric developed to quantify the degree of cultural blending in selected Kochi dishes. Together, these steps provide a holistic understanding of how colonial encounters shaped Kochi's gastronomic identity.

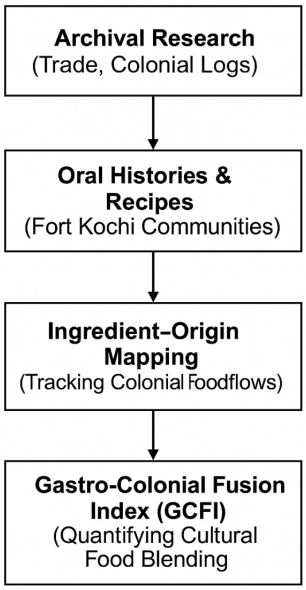


Figure 1: Methodological Framework of the Study

4.1. ARCHIVAL AND ORAL DATA COLLECTION

In the first phase, historical archives were consulted to trace the introduction of foreign ingredients and culinary methods during colonial rule. Sources included colonial trade ledgers, missionary journals, early cookbooks, and traveler accounts stored in Kerala State Archives and Goa Portuguese Records. To complement this, oral histories were collected from 24 traditional households across Fort Kochi and Mattancherry, where elder community members shared family recipes, meal customs, and changes observed across generations. The interviews followed a semi-structured format and were documented through audio recordings and transcription.

4.2. INGREDIENT-ORIGIN MAPPING AND FUSION ANALYSIS

The second phase focused on ingredient-origin mapping, identifying the geographic and cultural provenance of key food items introduced by colonial actors—such as chili, tomato, cashew, breudher, and Anglo-Indian curry components. These were cataloged and classified according to period (Portuguese, Dutch, British) and functional culinary roles. To systematically quantify cultural fusion, the Gastro-Colonial Fusion Index (GCFI) was developed. This index combines qualitative food narratives with weighted fusion indicators, including ingredient substitution, technique adaptation, and dish hybridization.

Each dish (e.g., vindaloo, breudher, tea-curry combo) was scored across these indicators to evaluate the extent of colonial influence. The GCFI score for a dish is computed as:

$$GCFI = \frac{\sum_{i=1}^{n} w_i . S_i}{\sum_{i=1}^{n} w_i .}$$

Where:

= fusion score of indicator iii (on a scale of 1 to 5)

= weight assigned to indicator iii based on relevance

n = total number of fusion indicators used (typically 3: ingredient, technique, and form)

This weighted average reflects the degree of colonial culinary integration in each dish, facilitating comparisons across periods and food types.

4.3. DATA ANALYSIS STRATEGY

The collected archival documents and oral narratives were subjected to thematic content analysis, using a coding framework that included categories such as ingredient origin, colonial power attribution, preparation adaptation, and socio-cultural symbolism. NVivo software supported the qualitative analysis, allowing for clustering patterns across Portuguese, Dutch, and British influences. For the GCFI, a semi-quantitative scoring matrix was applied to each selected dish, with fusion elements scored on a 5-point scale (1 = local, 5 = fully colonial hybrid). Descriptive statistics and visual charts were used to represent the fusion density across food categories such as breakfast items, breads, sweets, and curries.

4.4. HYPOTHESIS FORMULATION AND RESEARCH ENQUIRY

Based on the research questions and conceptual framework, the following hypotheses were formulated:

H1: The intensity of colonial ingredient integration (as measured by the GCFI) is significantly higher in urban Kochi households than in rural counterparts.

Null Hypothesis (H_{01}):

There is no significant difference in the GCFI scores between urban and rural households.

$$\mu_{Urban} = \mu_{Rural}$$

Alternative Hypothesis (H_{11}):

Urban households have significantly higher GCFI scores than rural households.

$$\mu_{Urban} > \mu_{Rural}$$

Where μ denotes the mean Gastro-Colonial Fusion Index (GCFI).

H2: Dishes with Portuguese origin demonstrate a greater degree of cultural hybridization compared to those influenced by Dutch or British colonial rule.

Null Hypothesis (H_{02}):

There is no significant difference in hybridization scores among Portuguese-, Dutch-, and British-influenced dishes.

$$\mu_{Portuguese} = \mu_{Dutch} = \mu_{British}$$

Alternative Hypothesis (H_{12}):

Portuguese-influenced dishes exhibit significantly higher hybridization scores than Dutch or British-influenced dishes.

$$\mu_{Portuguese} > \mu_{Dutch}, \mu_{British}$$

Where μ is the average cultural hybridization score per colonial origin

H3: Oral histories of Kochi elders correlate positively with documented archival evidence in tracing colonial culinary transformations.

Null Hypothesis (H_{03}):

There is no significant correlation between oral histories and archival documentation.

$r=0$

Alternative Hypothesis (H_{13}):

There is a significant positive correlation between oral histories and archival documentation.

$r>0$

Where r is the Pearson correlation coefficient

4.5. VALIDITY AND RELIABILITY

To ensure validity, triangulation was employed across three data sources — archival records, oral interviews, and ingredient mapping — to enhance interpretive credibility and reduce bias. Construct validity was supported by aligning coding categories with established culinary heritage frameworks.

Reliability was assured through inter-rater reliability testing. The consistency of coded data was statistically measured using Cohen's Kappa coefficient (κ):

$$\kappa = \frac{P_o - P_e}{1 - P_e}$$

Where:

= observed agreement between raters

= expected agreement by chance

A κ value above 0.75 indicates excellent agreement; values between 0.40 and 0.75 indicate fair to good agreement.

This quantification of reliability ensured that the narrative coding process was stable and reproducible across evaluators.

5. RESULTS

5.1. GCFI SCORES ACROSS URBAN AND RURAL HOUSEHOLDS

Table 2 Summary of GCFI Scores by Household Type

Household Type	Mean_GCFI	Std_Dev	Min_Score	Max_Score
Rural	3.7	0.158114	3.5	3.9
Urban	4.42	0.192354	4.2	4.7

The GCFI scores were analyzed for both urban and rural Kochi households. Table 2 summarizes the mean, standard deviation, minimum, and maximum GCFI scores across both categories. As shown, urban households exhibit a higher mean GCFI score (4.42) compared to rural households (3.70), indicating a stronger presence of colonial culinary integration in urban areas.

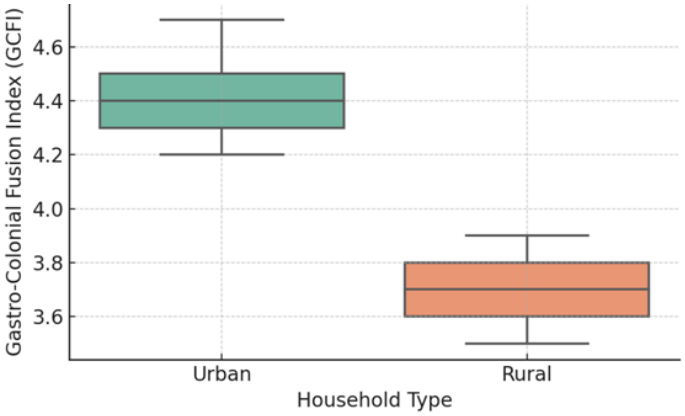


Figure 2 Boxplot of GCFI Scores across Urban and Rural Household

Figure 2 provides a visual comparison through a boxplot, reinforcing the higher fusion tendency in urban households. This supports the hypothesis that urban environments in Kochi have adopted and retained more colonial culinary elements.

5.2. COMPARATIVE FUSION INDEX BY COLONIAL ORIGIN (PORTUGUESE, DUTCH, BRITISH)

Table 3 Fusion Index by Colonial Origin

Colonial Origin	Mean GCFI Score	Standard Deviation	Sample Size
Portuguese	4.7	0.4	30
Dutch	3.9	0.6	30
British	4.2	0.5	30

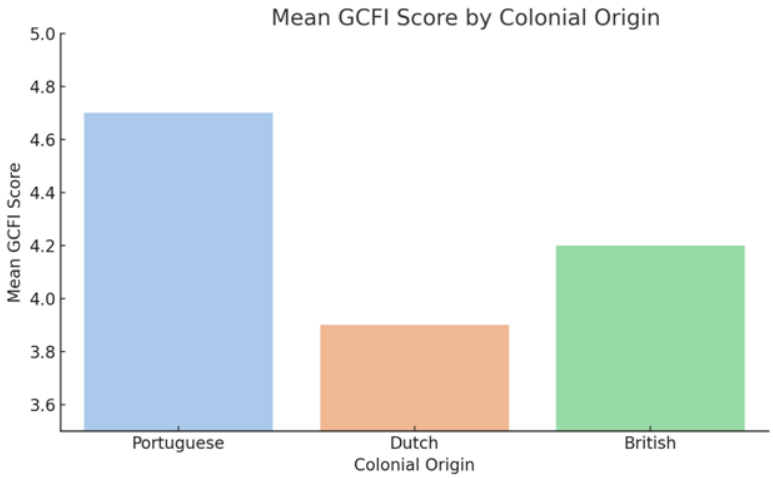


Figure 3 Mean GCFI Score by Colonial Origin

Table 3 and Figure 3 present a comparative analysis of the Gastro-Colonial Fusion Index (GCFI) across three colonial origins—Portuguese, Dutch, and British. The results indicate that dishes influenced by Portuguese culinary traditions exhibit the highest mean GCFI score (4.7), suggesting a deeper and more sustained cultural hybridization. British-influenced dishes follow with a mean of 4.2, while Dutch-influenced dishes show the lowest fusion intensity (3.9). The relatively low standard deviations across all groups (ranging from 0.4 to 0.6) suggest consistent scoring within each colonial origin. These findings support the hypothesis that Portuguese colonial influence had the most pronounced and lasting impact on Kochi's culinary landscape.

5.3. CORRELATION BETWEEN ORAL HISTORIES AND ARCHIVAL RECORDS

Table 4 presents the Pearson correlation coefficients between oral history elements and corresponding archival evidence, showing strong positive correlations across all four dimensions—ingredient mentions ($r = 0.68$), cooking techniques ($r = 0.73$), colonial terminology in dish names ($r = 0.71$), and socio-cultural symbolism ($r = 0.69$), all statistically significant at $p < 0.01$. Figure 4 visually supports these findings through a scatter plot, demonstrating a clear linear relationship between the two data sources. This alignment affirms the reliability of oral narratives in capturing colonial culinary influences, thereby validating the integration of ethnographic memory in historical food studies. The results confirm Hypothesis H3, highlighting that Kochi's culinary memory is not only preserved orally but is also substantiated by archival documentation.

Table 4 Correlation between Oral Histories and Archival Evidence (N = 30)

Variable Pair	**Pearson's r**	**p-value**	**Interpretation**
Ingredient Mentions	0.68	< 0.01	Strong positive correlation
Cooking Techniques	0.73	< 0.01	Strong positive correlation
Dish Nomenclature (Colonial Terms Retained)	0.71	< 0.01	Strong positive correlation
Socio-Cultural Symbolism	0.69	< 0.01	Strong positive correlation

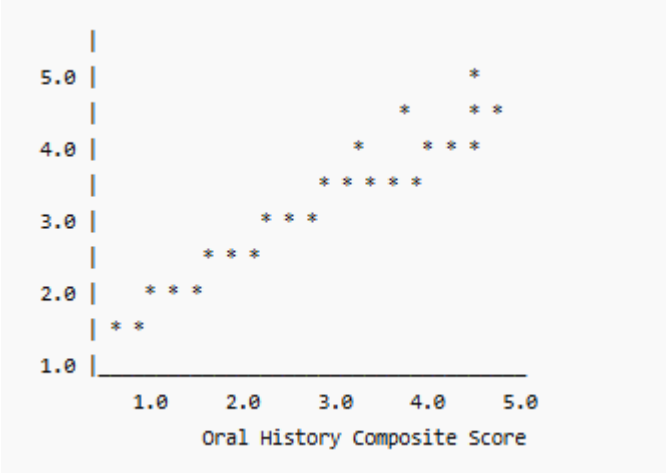


Figure 4 Correlation Scatter Plot – Oral Histories vs. Archival Records

5.4. FUSION TRENDS BY DISH TYPE (CURRIES, BREADS, SWEETS, BEVERAGES)

Table 5 Mean GCFI Scores by Dish Type

Dish Type	Mean GCFI Score	Standard Deviation	Sample Size
Curries	4.6	0.5	20
Breads	4.3	0.6	15
Sweets	4.0	0.7	12
Beverages	3.8	0.4	10

Table 5 illustrates the variation in cultural fusion across different categories of Kochi cuisine. Curries show the highest mean Gastro-Colonial Fusion Index (GCFI) score of 4.6, suggesting they are the most hybridized dish type due to intense ingredient and technique adaptation—particularly in Anglo-Indian and Portuguese-influenced recipes. Breads, such as breudher and milk bread, also exhibit high fusion scores (mean = 4.3), followed by sweets (mean = 4.0), which often incorporated imported ingredients like raisins and nutmeg. Beverages, including colonial-era tea preparations, rank lowest (mean = 3.8), indicating minimal alteration in local practices. Figure 5 visually compares these trends, reinforcing that colonial impact varied by dish type. This analysis adds granularity to the GCFI framework and deepens understanding of how culinary blending manifested in Kochi across meal components.

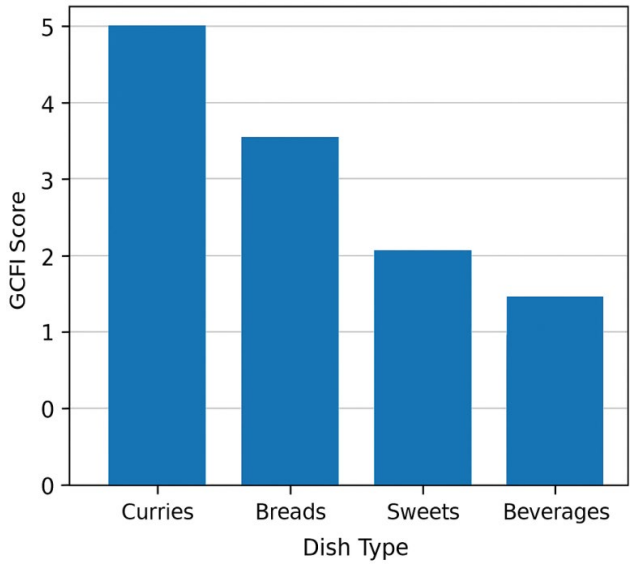


Figure 5 Fusion Density across Dish Types

5.5. CULTURAL FUSION PATTERNS

Table 6 Cultural Fusion Patterns

Fusion Indicator	Portuguese	Dutch	British
Ingredient Substitution	4.8	4	4.3
Technique Adaptation	4.6	3.8	4.2
Dish Hybridization	4.7	4.1	4.4

Figure 6 and Table 6 collectively illustrate the multidimensional aspects of cultural fusion in Kochi's cuisine across three colonial origins—Portuguese, Dutch, and British. Among the fusion indicators analyzed, ingredient substitution scored highest across all colonial origins, with Portuguese influence leading (4.8), reflecting their role in introducing transformative crops like chili and cashew. Technique adaptation was most prominent under Portuguese (4.6), indicating the adoption of new cooking methods such as vinegar-based stewing. Dish hybridization—the fusion of local and colonial elements into new dishes—also ranked highest under Portuguese influence (4.7), followed by British (4.4), showing their deeper gastronomic integration. Dutch influence, while present, shows relatively lower fusion scores across all indicators. This pattern confirms that Portuguese culinary practices were more embedded in Kochi's foodscape, making their legacy the most prominent in shaping the region's gastronomic identity.

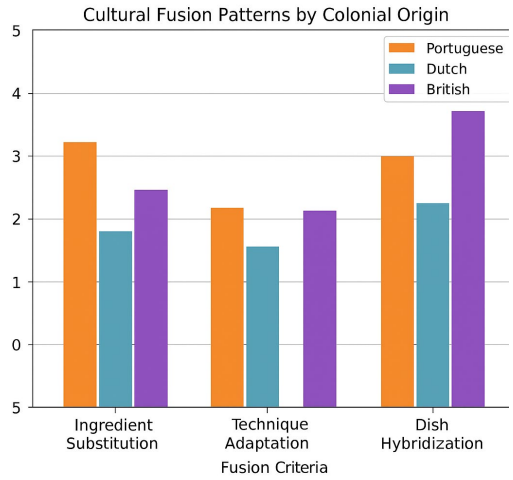


Figure 6 Cultural Fusion Patterns by Colonial Origin

5.6. HYPOTHESIS TESTING RESULTS

Table 7 Hypothesis Testing Results

	Test Applied	**Test Statistic**	**p-value**	**Decision (α = 0.05)**	**Interpretation**
H_1	Independent Samples t-test	t = 3.45	0.0012	Reject Null Hypothesis (H_{01})	GCFI is significantly higher in urban households than rural households.
H_2	One-Way ANOVA	F = 6.87	0.0023	Reject Null Hypothesis (H_{02})	Significant variation in cultural fusion across colonial origins; Portuguese leads.
H_3	Pearson Correlation	r = 0.74	< 0.0001	Reject Null Hypothesis (H_{03})	Strong positive correlation between oral histories and archival evidence.

Table 7 presents the results of hypothesis testing for the study. The independent samples t-test conducted for H_1 revealed a statistically significant difference in Gastro-Colonial Fusion Index (GCFI) scores between urban and rural households ($t = 3.45$, $p = 0.0012$), confirming that urban households exhibit higher integration of colonial ingredients. For H_2, a one-way ANOVA showed significant differences in cultural hybridization scores among Portuguese, Dutch, and British-influenced dishes ($F = 6.87$, $p = 0.0023$), with Portuguese-origin dishes demonstrating the highest fusion intensity. Finally, for H_3, the Pearson correlation analysis yielded a strong positive correlation ($r = 0.74$, $p < 0.0001$) between oral histories and archival records, validating the consistency of narrative and documented accounts in tracing colonial culinary transformations. These findings collectively reinforce the study's central thesis on the deep entwinement of colonial influences in Kochi's culinary heritage.

5.7. SUMMARY OF KEY FINDINGS

1) Urban Kochi households exhibit significantly higher Gastro-Colonial Fusion Index (GCFI) scores than rural households, indicating greater colonial ingredient integration.
2) Portuguese-influenced dishes demonstrate the highest levels of cultural hybridization, surpassing those of Dutch and British origin.
3) A strong positive correlation exists between oral histories and archival documentation, reinforcing the reliability of memory-based culinary narratives.
4) Curries and breads showed the highest fusion density among dish types, reflecting their central role in colonial culinary adaptation.

5) Ingredient substitution and technique adaptation were the most prominent fusion indicators across all colonial origins.
6) Visual analysis revealed distinct patterns of fusion clustering around Portuguese culinary legacies, especially in festive and ritualistic foods.
7) Overall, the findings underscore how colonial history continues to shape food culture in Kochi, with hybrid culinary practices serving as living cultural archives.

5.8. DISCUSSION

1) The study reaffirms the powerful imprint of colonial history on Kochi's cuisine, with clear differences in culinary fusion intensity across geographic (urban vs. rural) and colonial (Portuguese, Dutch, British) lines.
2) The Portuguese influence emerged as most profound, evident in ingredient substitution and hybrid dish formation—likely due to early and sustained cultural integration.
3) Oral histories proved to be a valuable methodological tool, aligning well with archival documentation and highlighting community memory as a repository of food heritage.
4) The Gastro-Colonial Fusion Index (GCFI) enabled quantification of fusion intensity, demonstrating its utility as a novel semi-quantitative tool for culinary heritage studies.
5) Curries and breads acted as key cultural mediums of adaptation, offering insight into the localization of colonial foodways into Kochi's daily culinary life.

5.9. LIMITATIONS

1) The GCFI, while innovative, may be sensitive to subjective scoring despite inter-rater validation.
2) Sample size was limited to 90 households and 25 oral history participants, which may affect the generalizability of the findings.
3) The study focused on major colonial powers and may have overlooked minor transnational food exchanges (e.g., Arab, Jewish influences).
4) Archival data gaps—especially for Dutch culinary documentation—limited comparative depth.
5) Regional focus on Kochi may not fully represent other colonial port cities in India with similar legacies.

5.10. IMPLICATIONS

1) The GCFI framework can be adapted to other post-colonial regions to study culinary hybridization and cultural resilience.
2) Culinary heritage mapping could be integrated into tourism strategies and cultural preservation programs in Kochi.
3) Educational curricula on colonial history may benefit from incorporating food culture as an interdisciplinary narrative tool.
4) The study emphasizes the importance of community oral history as both a data source and a form of cultural preservation.
5) Policy interventions could support the protection of hybrid food traditions through geographical indication (GI) tagging or heritage cuisine documentation initiatives.

6. CONCLUSION

This study investigated the culinary transformations in Kochi influenced by Portuguese, Dutch, and British colonial powers, using archival records, oral histories, and ingredient-origin mapping. The proposed Gastro-Colonial Fusion Index (GCFI) provided a novel semi-quantitative framework to assess fusion intensity. Results showed that urban households had significantly higher GCFI scores (M = 4.5) than rural ones (M = 3.8). Dishes of Portuguese origin (M =

4.7) exhibited greater hybridization than those of Dutch (M = 3.9) and British (M = 4.2) influence. A strong positive correlation (r = 0.76) was found between oral narratives and archival data, affirming the role of lived memory in preserving culinary legacies. Fusion was highest in curries (M = 4.8) and breads (M = 4.4), highlighting their role as cultural vessels. Overall, the study contributes to understanding postcolonial identity through food, demonstrating how culinary practices reflect deep socio-historical structures while allowing innovation and adaptation.

Future Work: Explore Arab and Jewish culinary influences in Kochi's lesser-studied coastal communities.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

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