UNIVERSITI TEKNOLOGI MARA

DEVELOPING URBAN CONSERVATION STRATEGIES FOR PEKAN PAPAN, PERAK

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of the requirements for the degree of
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ABSTRACT

The existence of former tin mining towns in Malaysia represents a significant cultural and historical asset that reflects the socio-economic development of the nation. These towns emerged during the rapid expansion of the tin mining industry and played a vital role in shaping Malaysia's economic growth, urban morphology, and multicultural social structure. The development of these towns demonstrates the integration of diverse cultural influences, the evolution of architectural forms, transportation networks, and accessibility, which collectively supported the mining industry, port activities, and administrative functions during the early stages of urban development. However, in the present context, many former tin mining towns have experienced significant neglect as a consequence of rapid urbanisation, uncontrolled urban encroachment, and shifting economic activities. These pressures have gradually eroded the historical urban fabric, weakened the social structure, and diminished the distinctive character of these historic settlements. Without appropriate conservation strategies, the tangible heritage and identity of these towns may continue to deteriorate and eventually disappear. Therefore, this research examines the implementation of urban conservation strategies for former tin mining towns in Malaysia through the analysis of their physical characteristics as essential components of place identity. Pekan Papan, Perak, is selected as the case study due to its historical significance as one of the early tin mining towns and its representation of Malaysia's multicultural heritage landscape. The study explores, identifies, and evaluates the tangible elements that contribute to the physical character of the town by reviewing theoretical concepts and definitions related to physical characteristics as indicators of place identity. The research further emphasises the importance of recognising distinctive elements embedded within the built environment and the associated socio-cultural activities that shape the character of the town. Understanding these elements enables the identification of unique spatial and architectural features that enhance the legibility and recognisability of the historic urban landscape. Ultimately, the findings of this research contribute to the formulation of appropriate urban conservation strategies aimed at regenerating and safeguarding the cultural heritage entity of former tin mining towns, particularly within the context of Perak.

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TABLE OF CONTENTS

	Page
CONFIRMATION BY PANEL OF EXAMINERS	**ii**
AUTHOR'S DECLARATION	**iii**
ABSTRACT	**iv**
ACKNOWLEDGEMENT	**v**
TABLE OF CONTENTS	**vi**
LIST OF TABLES	**xiii**
LIST OF FIGURES	**xvv**
LIST OF ABBREVIATIONS	**xxvi**
CHAPTER 1 INTRODUCTION	**1**
1.1 Reseach Background	1
1.2 Problem Statement	3
1.2.1 Abandonment and Negligence of Former Tin Mining Towns in Lembah Kinta, Perak	3
1.2.2 The lack of Understanding on The Town's Physical Characteristic as Source of Cultural Heritage Resources.	8
1.2.3 Abandonment of Cultural Heritage Resources	12
1.3 Research Question	15
1.4 Aim and Objectives	15
1.4.1 Aim	15
1.4.2 Objectives	15
1.5 Research Scope	16
1.6 Limitation of Study	16
1.7 Significant of Study	17
1.8 Thesis Structure	18
1.9 Preliminary Study	20
1.10 Methodology	20
1.11 Literature Study	20

1.12 Data collection and case study. 20
1.13 Data and Sample Collection 21
1.14 Analysis and Findings 21
1.15 Research Strategies 22
1.16 Summary and Recommendation of Research 22
1.17 Conceptual Framework of Research 22
1.18 Summary 24

CHAPTER 2 LITERATURE REVIEW: APPROACH OF PHYSICAL CHARACTERISTIC & ITS RELATIONSHIP WITH CULTURAL HERITAGE IN CONSERVATION 25

2.1 Introduction 25
2.2 The Scenario & Issues on Abandon Towns 25
2.2.1 Issues of Abandon Towns in Malaysia 27
2.2.2 Tin Mining Towns as part Of Heritage Area. 35
2.2.3 Evolution & Abandonment of Former Tin Mining Towns in Malaysia 35
2.3 Definition and Concept of Conservation 40
2.3.1 Type of Conservation 40
2.3.2 Ascendants of Intervention in Conservation 41
2.3.3 Concept & Definition of Urban Conservation 44
2.3.4 Implementation of Urban Conservation in Malaysia 45
2.3.5 Issue of urban conservation in Malaysia 48
2.4 Definition & Concept of Cultural heritage in Urban Conservation. 53
2.4.1 Definition of Cultural Heritage 53
2.4.2 Cultural Heritage As a factor in Urban Conservation 56
2.4.3 Issues of Cultural Heritage in the Conservation approach In Malaysia. 59
2.4.4 Effort of Urban Conservation From Local Communities 60
2.5 Concept & Definition of Physical Characteristics & its Relationship with Urban Conservation 62
2.5.1 Elementa of Physical Characteristic in Urban Conservation 63

2.5.2 Legibility as a physical factor in Urban Conservation 64
2.5.3 Physical Characteristics of Old Town in Malaysia 66
2.6 Urban Structure in Urban Conservation 67
2.7 Architectural Features in Urban Conservation 69
2.8 Guidelines on Heritage Conservation which Relate to Physical Characteristics in Malaysia. 73
2.8.1 Guidelines on Heritage Building Conservation 2017 from Jabatan Warisan Negara 74
2.8.2 Conservation Planning Guidelines for Heritage Area from PLANMalaysia 2023 (PEWARIS) 74
2.8.3 Architectural and Building Design Aspects 76
2.8.4 Building Topology 77
2.8.5 Building Conservation requirement 77
2.8.6 Requirements for Internal Conservation of Buildings 77
2.9 Examples of Conservation Strategies with Reference to Physical Characteristics and Cultural Heritage 79
2.9.1 Torri Superiore Ecovillage Urban Conservation of abandon Towns in South Italy 79
2.9.2 Urban Conservation Strategies for Abandoned Buildings in Clark Quay, Singapore 84
2.9.3 Urban Conservation Strategies of the Abandon Shop Houses Project at, Heeren Street, Malacca 88
2.9.4 Urban Conservation Strategies at Cocubine Lane (Jalan Panglima), Ipoh Perak 90
2.9.5 Conservation Strategies of former tin mining town in Taiping, Perak 95
2.9.6 Conservation Strategies of Former Tin Mining Town in Gopeng , Perak 103
2.10 Summary 107

CHAPTER 3 RESEARCH METHODOLOGY **108**
3.1 Introduction 108
3.2 Design and Approach Review 108
3.3 Research Strategies 117
3.4 Implementation of the study 118
3.4.1 Technique of data Collection 120
3.5 Data Collection Technique for Qualitative Analysis 125
3.5.1 Design Approaches 125
3.5.2 Respondent selection 126
3.5.3 Sample Size 127
3.5.4 Recording in Depth Interview 130
3.6 Technique in Observation 130
3.6.1 Visual survey 131
3.6.2 Direct & Indirect Observation 132
3.6.3 Equipment for Observation 132
3.7 Observation Techniques from Mapping Activities 135
3.7.1 Data Collection Methods 135
3.8 Historical Document Analysis Technique 137
3.8.1 Data Collection Methods 138
3.9 Focus Group Discussion Technique 139
3.9.1 Data Collection Methods 139
3.9.2 Sample Size and Group 140
3.9.3 Data Collection Methods 141
3.10 Data Reliability and Authenticity 142
3.11 Summary 143

CHAPTER 4 CASE STUDY- PEKAN PAPAN,PERAK **144**
4.1 Introduction 144
4.2 Pekan Papan 145
4.3 Urban Mythology of Pekan Papan 155
4.4 Layout of Pekan Papan. 157
4.5 Physical Outlook of Pekan Papan In Present 158
4.6 Population in Pekan Papan 160

4.7 Building Typology in Pekan Papan 161
4.8 Pre War Shophouses 167
4.8.1 Building Forms & Architectural Façade 171
4.9 Kampung Mandailing 181
4.9.1 Rumah Asal & Rumah Besar Raja Billah 183
4.9.2 Masjid Papan & Rumah Bilal 185
4.10 Kampung Baru Papan 189
4.11 Public Buildings 193
4.12 Backlane and Middle Alley 200
4.13 Tin Mining Pond and Landscape 203
4.14 Conservation Effort in Papan 206
4.15 Papan Heritage Walk 2022 & 2023 An Eye Opener to Public 206
4.16 Official Opening of Papan Heritage Gallery and Proposal of World Heritage Cultural Village under UNESCO 209
4.17 Conservation Effort from NGO and Local Community 210
4.18 Conservation Strategies and Proposal from Local Authority for Pekan Papan 211
4.19 Summary 213

CHAPTER 5 ANALYSIS AND FINDINGS 214
5.1 Introduction 214
5.2 Data Analysis 214
5.2.1 Observation Analysis 215
5.2.2 In Depth Interview Analysis 215
5.2.3 Physical Mapping and Responsive Environment Analysis 216
5.2.4 Historical Document is Analysis 216
5.2.5 Focus Group Discussion Analysis 217
5.3 Categorizing Buildings from Zoning in Pekan Papan 217
5.3.1 Analysis ZONE 1 - Pre-War Shop Houses 222
5.3.2 Analysis ZONE 2 – Kampung Mandailing 226
5.3.3 Analysis ZONE 3- Kampung Baru Papan 230
5.3.4 Analysis ZONE 4- Public Building 234
5.3.5 Analysis-Back Lane & Middle Alley 237

5.4 Analysis Architectural Detail 240
5.5 Legibility Analysis in Pekan Papan 254
5.5.1 Analysis of Path in Pekan Papan 261
5.5.2 Analysis of Edge and District in Papan 276
5.5.3 Analysis of Nodes in Pekan Papan 285
5.5.4 Analysis of Landmark / Marker in Pekan Papan 293
5.6 Analysis of Cultural Landscape Element 302
5.7 Analysis of Cultural Activities in Papan 305
5.8 Analysis from In Depth Review 309
5.8.1 Outcome from In Depth Review 314
5.9 Analysis from Focus Group discussion 317
5.9.1 Outcome from Group Discussion 321
5.10 Summary 323

CHAPTER 6 ANALYSIS AND FINDINGS: URBAN CONSERVATION STRATEGIES FOR PEKAN PAPAN 324

6.1 Introduction 324
6.2 The important of Physical Character as Factor of Conservation. 324
6.3 The Influence of Physical Elements, Activity and Image 325
6.4 The Significance of Conservation Strategies as Responsive Environment Factors for Pekan Papan as An Identity of Place. 326
6.5 Significance of variation in perception of qualities associated with identity between different socio-cultural groups 329
6.6 The Significance of conservation strategies for Pekan Papan and Abandon Towns. 331
6.7 Conservation Strategies Related to Proposal from Local Authority For Pekan Papan 333
6.8 Proposal and Method of Urban Cultural Heritage Conservation Strategies from the analysis of physical characteristic in Pekan Papan 338
6.9 Conservation Strategies at Focal Point 345
6.10 Conservation strategies at Primary Conservation Area (PCA1) 355
6.11 Conservation Strategies at Primary Conservation Area 2 (PCA2) 365
6.12 Conservation strategies at Support Area (SA) 376

6.13 Validation of Proposal 386
6.14 Action of Governance and Others in Conserving the Urban Cultural Heritage in Former Tin Mining Towns pf Lembah Kinta 386
6.15 Problems and Limitation Faced by The Stakeholder and Authorities 388
6.16 Implementation of Urban Cultural Heritage Conservation Strategies In Pekan Papan, Perak from the physical Aspect as A Pilot Study to Other Authority 388
6.17 Implementation of Urban Cultural Heritage Conservation Strategies to safekeep historical Significance For Future Genereation 389
6.18 Implementation of Urban Cultural Heritage Conservation Strategies as Means of Protection Against New Development 390
6.19 Implementation of Urban Cultural Heritage Conservation Strategies to create variety of Attraction and Generate Income for Stakeholder 390
6.20 Recommendation for Further Research. 391
6.21 Conclusion 392

REFRENCES **393**

APPENDICES **404**

AUTHOR'S PROFILE **409**

LIST OF TABLES

Tables	Title	Page
Table 1.1	Pre- War Buildings in Lembah Kinta, Perak	4
Table 1.2	The Distribution of Former Tin Mining Towns Based on The Current Conditions from Site Visit	5
Table 3.1	Methodology Studies by Former Researchers	109
Table 3.2	Relationship Between Techniques for Study	121
Table 3.3	Measurement Indicators for Character Elements	125
Table 3.4	Tabulation of Researcher and Number of Respondents	127
Table 3.5	Respondents Profile for In Depth Interview	128
Table 3.6	Character Measurement Indicators	133
Table 3.7	Reference Sources for Document Analysis Techniques	138
Table 3.8	Respondents of Profile for Focus Group Discussion Techniques	140
Table 4.1	Tabulation of Population in Pekan Papan	160
Table 4.2	Building Character in Pekan Papan	161
Table 4.3	Tabulation of Pre-War Shophouses Based on Historical Record And Which Still Exist in Present	170
Table 5.1	Buildings According to Zoning in Pekan Papan	220
Table 5.2	Pre-War Shophouse Category in Pekan Papan	223
Table 5.3	Building Condition in Kampung Mandailing	227
Table 5.4	Building Condition in Kampung Baru Papan	231
Table 5.5	Public Building Conditions in Pekan Papan	235
Table 5.6	Category of Elements at Backlane in Pekan Papan	237
Table 5.7	Legibility Analysis Inventory of Pekan Papan	257
Table 5.8	Legibility Analysis (Path) In Pekan Papan	265
Table 5.9	Legibility Analysis (Edges & District At Pekan Papan)	280
Table 5.10	Legibility Analysis (Nodes) Of Pekan Papan	289
Table 5.11	Legibility Analysis (Landmark) In Papan	296
Table 5.12	Category of Respondent from In Depth Interview	310

Table 5.13	Outcome of In-Depth Interview (Experts In Academic and Field)	311
Table 5.14	Outcome of In-Depth Interview with Experts from Local Community	312
Table 5.15	Outcome of In-Depth Interview with Experts from Outsiders & Visitors	313
Table 5.16	Distribution of Panel for Focus Group Discussion	317
Table 5.17	FGD Session With Local Community	318
Table 5.18	Summary Of Discussion During FGD 2	319
Table 6.1	List of Conservation Strategies Extract from Local Authority (MDBG) Structure Plan 2025	334
Table 6.2	Images Of Built Form at Selective Conservation Area	343
Table 6.3	Conservation Strategies at Focal Point (FP)	348
Table 6.4	Conservation Strategies for Primary Conservation Area 1 (PCA 1)	359
Table 6.5	Conservation Strategies for Primary Conservation Area 2 (PCA 2)	368
Table 6.6	Conservation Strategies for Support Area (SA)	378

LIST OF FIGURES

Figures	Title	Page
Figure 1.1	Existing Tin Dredge No 5 (TT%) in Tanjung Tualang	4
Figure 1.2	The Map Of Tin Mining Location And Towns Along The Railway Tracks In The 18th Century.	5
Figure 1.3	Former Tin Mining Town in Pekan Papan, Perak	6
Figure 1.4	Former Tin Mining Town in Lahat, Perak	6
Figure 1.5.	Former Tin Mining Town in Temoh, Perak	7
Figure 1.6	Former Tin Mining Town in Sungei Raya, Perak	7
Figure 1.7	Former Tin Mining Town in Siputeh, Perak	8
Figure 1.8	Former Tin Mining Town in Kota Bharu, Perak	8
Figure 1.9	Rumah Besar Raja Billah in Pekan Papan, Perak	9
Figure 1.10	Masjid Papan, Pekan Papan, Perak	10
Figure 1.11	Old Shophouses in Pekan Gopeng, Perak	10
Figure 1.12	The Distinctives Character of Shophouses in Pekan Pusing, Perak	11
Figure 1.13	Beautiful Street Patterns and Facade Of Shophouses in Lahat, Perak	11
Figure 1.14	The Daily Activities Along the Street Frontage Of Old Shophouses in Tronoh , Perak	12
Figure 1.15	The Daily Traditional Business in Gopeng	13
Figure 1.16	One Of the Landmarks in Batu Gajah Old Towns	13
Figure 1.17	The Daily Activities (Barber Shop) Of the Shop Front Of Shophouses at Pekan Temoh, Perak.	14
Figure 1.18	The Uniqueness of Multicultural Heritage At Kuala Kangsar, Perak	14

Figure 1.19	Thesis Structure	19
Figure 1.20	Conceptual Framework	23
Figure 2.1	Abandon Town-Hashima Island, Japan	26
Figure 2.2	Abandon Town- Chernobyl, Ukraine	27
Figure 2.3	Evolution of Ipoh in 18th Century And 2023	28
Figure 2.4	The Formation of Kuala Lumpur	29
Figure 2.5	Current Condition of Old Town In Alor Setar, Kedah	30
Figure 2.6	Current Condition of Old Town In Kuala Dungun, Trengganu	31
Figure 2.7	Current Condition Of Old Town in Sungai Lembing, Pahang	31
Figure 2.8	The Old Picture of Jalan Silang, Kuala Lumpur	33
Figure 2.9	The Old Picture of Gopeng Perak	34
Figure 2.10	The Old Picture of Pekan Papan, Perak	34
Figure 2.11	TT5 In Tanjung Tualang, Perak	35
Figure 2.12	Tin Dredging in Dengkil , Selangor	36
Figure 2.13	Evolution of Tin Mining Town in Lembah Kinta, Perak	38
Figure 2.14	Old Shophouses at Former Old Tin Mining Town In Temoh and Gopeng, Perak	39
Figure 2.15	Buildings in Former Tin Mining Towns in Papan and Temoh Station, Perak	39
Figure 2.16	Istana Seri Menanti Kuala Pilah, Negeri Sembilan	42
Figure 2.17	Bangunan Persatuan Sejarah Terengganu, Kuala Terengganu, Terengganu	42
Figure 2.18	Conservation of Old Shophouses in Kuala Kangsar, Perak	46
Figure 2.19	Conservation at China Town, Alor Setar, Kedah	47
Figure 2.20	Conservation Of Backlane Area at Jonker Street Melaka	47
Figure 2.21	Restoration Of Old Mansion at Lebuh Acheh, Penang	48
Figure 2.22	The Condition After Restoration of Rumah Degil, Kuala Lumpur	49
Figure 2.23	Scenery at Pekan Tronoh, Perak	52

Figure 2.24	Gateway of Chinatown in Kuching, Sarawak	52
Figure 2.25	Cultural Heritage Activities in Temple Bar, Dublin & Siniawan, Sarawak	54
Figure 2.26	Masjid Jame, Kuala Lumpur	55
Figure 2.27	Papan Heritage Walk, Pekan Papan, Perak	56
Figure 2.28	Archaeological Site in Lembah Bujang, Kedah	57
Figure 2.29	Traditional Dance in Malaysia	60
Figure 2.30	Gopeng Heritage Gallery, Gopeng Perak.	61
Figure 2.31	Kajang Heritage Gallery, Kajang, Selangor	61
Figure 2.32	Papan Heritage Gallery, Pekan Papan, Perak	62
Figure 2.33	Old Shophouses in Kuala Dungun, Terengganu	66
Figure 2.34	Old Train Station Building in Alor Setar, Kedah	67
Figure 2.35	The Evolution of Chinatown, Alor Setar, Kedah	69
Figure 2.36	Old Shop Houses in Beranang Old Town, Selangor	71
Figure 2.37	Old Mansion Building in Lahat, Perak	71
Figure 2.38	The Evolution of Shop Houses Façade in Malaysia	72
Figure 2.39	Layout of Torri Superiore, Italy	81
Figure 2.40	The Aerial View of Torri Superiore, Italy	82
Figure 2.41	Natural Materials and Appropriate Technologies in Building Conservation	82
Figure 2.42	Renovation Process of Cultural Centre At Torri Superiore, Italy	83
Figure 2.43	Torre Superiore Cultural Heritage	83
Figure 2.44	The Origin Plan of Clarke Quay, Singapore	85
Figure 2.45	The Conservation Area of Clarke Quay, Singapore	86
Figure 2.46	Clarke Quay Old Picture	87
Figure 2.47	Transformation of Clarke Quay, Singapore	87
Figure 2.48	Map of Jalan Tun Tan Cheng Lock, Melaka	88
Figure 2.49	Conservation of Building Façade at Hereen Street, Malacca	90

Figure 2.50	The Development of Urban Pattern in Ipoh, Perak	92
Figure 2.51	Old Shophouses at Jalan Market Ipoh, Perak	92
Figure 2.52	Conservation Of Shophouses at Jalan Market, Ipoh, Perak	93
Figure 2.53	Concubine Lane (Jalan Panglima), Ipoh, Perak in 2010, 2020 And 2025	93
Figure 2.54	Five Footway At Old Shophouses in Concubine Lane, Ipoh, Perak	94
Figure 2.55	Adaptive Reuse Of The Abandon Street in Concubine Lane, Ipoh, Perak	94
Figure 2.56	Retention Action Plan of Taiping, Perak	98
Figure 2.57	List Buildings or Monuments in Taiping, Perak	99
Figure 2.58	Study of Building and Typology In Taiping, Perak	100
Figure 2.59	Administrative Building in Taiping, Perak	101
Figure 2.60	Old Shophouses in Taiping, Perak	101
Figure 2.61	Old Shophouses in Taiping, Perak	102
Figure 2.62	Five Footway at Old Shophouses in Taiping, Perak	102
Figure 2.63	Location Map of Gopeng, Perak	104
Figure 2.64	Mix Development of Buildings in Gopeng, Perak	105
Figure 2.65	Old Shophouses in Gopeng, Perak	105
Figure 2.66	Gopeng Heritage Gallery, Gopeng Perak	106
Figure 2.67	Old Shophouses in Gopeng, Perak	106
Figure 3.1	Summary of Data Collection Methods	120
Figure 3.2	Summary of Observation Techniques	134
Figure 3.3	Method of Research Through Mapping Activities	137
Figure 4.1	Tin Mines in Tambun, Lembah Kinta, Perak	144
Figure 4.2	Old Town in Sungai Raia, Ipoh	145
Figure 4.3	Main Signage to Pekan Papan	146
Figure 4.4	Location Map of Pekan Papan	146
Figure 4.5	Aerial View of Pekan Papan	147

Figure 4.6	The Pre-War Shophouses in Pekan Papan	148
Figure 4.7	Houses of Local Residents at Kampung Baru Papan	149
Figure 4.8	Entrance to Kampung Mandailing	149
Figure 4.9	Raja Yaacob and The Mandailing Tribes Gathering	152
Figure 4.10	Old Picture Shows Buildings in Pekan Papan in 18th Century	153
Figure 4.11	Old Photograph Shows The Police Station in Pekan Papan in 1885 Which No Longer Exist	153
Figure 4.12	Old Shophouses on The Main Road of Pekan In 1888	154
Figure 4.13	Dr Sybil Kathiagasu and His Wife	154
Figure 4.14	Urban Morphology of Pekan Papan	156
Figure 4.15	Map of Pekan Papan in 1900	158
Figure 4.16	Layout of Pekan Papan in Present	159
Figure 4.17	Layout of Pekan Papan and The Pre-War Shophouses	167
Figure 4.18	Layout of Shophouses in Pekan Papan in 18th Century Shows The Usage of Buildings	168
Figure 4.19	Aerial View of Pre-War Shophouses Unit 27-83 Which Still Exist	168
Figure 4.20	Aerial View of Pre-War Shop Houses Which Still Exist, Basketball Court and SRJK (Chinese Papan)	169
Figure 4.21	Aerial View of Pre-War Shop Houses at Pekan Papan	169
Figure 4.22	7 Façades Identified on Shophouses in Pekan Papan.	171
Figure 4.23	Façade of Shophouses Lot 39-55	172
Figure 4.24	Façade of Shophouses Lot 69-71	172
Figure 4.25	Façade of Shop Houses Lot 42-48	173
Figure 4.26	Façade of Shop Houses Lot 64-67	173
Figure 4.27	Façade of Shophouses Lot 73-83	174
Figure 4.28	Façade of Shophouses Lot 69-71	174
Figure 4.29	Façade of Shophouses Lot 69-71	175

Figure 4.30	Façade Shophouses Lot 74	175
Figure 4.31	Façade of Shophouses Lot 60	176
Figure 4.32	Typical Layout of Shophouses In Pekan Papan	177
Figure 4.33	Interior View Of Shophouses Lot 61	178
Figure 4.34	Interior View of Shophouses Lot 83	179
Figure 4.35	The Ground Floor Level Toward Courtyard Area and Typical First Floor Area	180
Figure 4.36	Location Plan Where Kampung Mandailing Located	181
Figure 4.37	Aerial View Shows Rumah Besar Raja Billah, Rumah Asal, Masjid Papan & Rumah Bilal	182
Figure 4.38	Location Map of Kampung Mandailing	182
Figure 4.39	External View of Rumah Besar Raja Billah	183
Figure 4.40	Rumah Asal Which Built Adjacent to Rumah Besar For Raja Billah Family	184
Figure 4.41	Interior View of Rumah Besar Raja Billah	184
Figure 4.42	Decorative Wall Where the Guard House And Doorway Was Located	185
Figure 4.43	Access to Masjid Papan as Landmark to Kampung Mandailing.	186
Figure 4.44	Front Elevation of Masjid Papan	186
Figure 4.45	Interior View Of Masjid Papan	187
Figure 4.46	Interior View Of Masjid Papan	187
Figure 4.47	Rumah Bilal Haji Muhammad Salleh	188
Figure 4.48	Location Map of Kampung Baru Papan	189
Figure 4.49	Aerial View of Kampung Baru Papan	190
Figure 4.50	Aerial View of Kampung Baru Papan	190
Figure 4.51	View of Row Houses at Kampung Baru Papan	191
Figure 4.52	Front Elevation of Row House at Kampung Baru Papan	191

Figure 4.53	Front Elevation of Semidetached Single Storey House at Kampung Baru Papan	192
Figure 4.54	Single Unit House at Kampung Baru Papan.	192
Figure 4.55	Typical Interior of Timber House in Kampung Baru Papan	193
Figure 4.56	Aerial View of Chinese Theatre and Kun Yam Mui Temple	194
Figure 4.57	Kun Yam Miu Temple	195
Figure 4.58	Aerial View of Yip Sei Mansion	195
Figure 4.59	Yip Sei Mansion Building	196
Figure 4.60	Aerial View of Public Buildings	196
Figure 4.61	Coffee Shop Which Located At Middle Point Road in Pekan Papan	197
Figure 4.62	Community Hall Building	197
Figure 4.63	Hwa Chao Chinese School	198
Figure 4.64	SRJK Chinese Papan	198
Figure 4.65	Sybil Kathiagasu Gallery	199
Figure 4.66	Aerial View of Back Lane/ Middle Alley	200
Figure 4.67	View at Back Lane/ Middle Alley	201
Figure 4.68	Street Art by Local Resident	201
Figure 4.69	Graffiti Painted By Local People on the Wall At The Rear of Pre-War Shophouses	202
Figure 4.70	View at Back Lane	202
Figure 4.71	Backyard of Pre-War Shophouses	203
Figure 4.72	The Mining Pond Which Still Exist in Pekan Papan	204
Figure 4.73	The Mining Pond Which Still Exist in Pekan Papan	204
Figure 4.74	Natural Landscape at Kampung Mandailing	205
Figure 4.75	Bayan Wild Plant and Manmade Tree Which Still Exist As Landscape	205

Figure 4.76	Yearly Program Arranged by Papan Heritage Group	207
Figure 4.77	Variety of Activities Happened During Papan Heritage	208
Figure 4.78	Combination of Concepts Such as Retro, Traditional Custom And Local Food	208
Figure 4.79	Official Opening of Gallery Papan	209
Figure 4.80	Official Opening of Papan Heritage Gallery	210
Figure 4.81	Awareness Program Arranged by Papan Heritage Group in Order to Promote Pekan Papan	210
Figure 4.82	Awareness Program Which Collaborate With Other Parties	211
Figure 4.83	Night Visit Activity at Rumah Besar Raja Billah	212
Figure 5.1	Site Boundary Of Pekan Papan	218
Figure 5.2	Zoning of Pekan Papan	219
Figure 5.3	Pre-War Shop Houses at Zone 1	224
Figure 5.4	Interior and Architecture Detail at Pre War Shop Houses	225
Figure 5.5	Buildings at Kampung Mandailing	228
Figure 5.6	Interior and Detail of Buildings in Kampung Mandailing	229
Figure 5.7	Buildings at Kampung Baru Papan	232
Figure 5.8	Interior Condition of House in Kampung Baru Papan	233
Figure 5.9	Public Buildings at Pekan Papan	236
Figure 5.10	Back Lane at Old Shophouses Which Still Maintain And Abandon	238
Figure 5.11	View of Back Lane and Middle Alley	239
Figure 5.12	Architectural Detail at Yip Sei Mansion	241
Figure 5.13	Architectural Detail at Yip Sei Mansion	242
Figure 5.14	Architecture Detail at Rumah Besar Raja Billah	243
Figure 5.15	Architecture Detail at Rumah Besar Raja Billah	244
Figure 5.16	Architecture Detail at Masjid Papan	245
Figure 5.17	Architecture Detail at Masjid Papan	246

Figure5.18	Architecture Detail at Masjid Papan	247
Figure 5.19	Architecture Detail at Pre-War Shophouses In Pekan Papan	248
Figure 5.20	Architecture Detail at Hwa Chao Old Chinese School	249
Figure 5.21	Architectural Detail at Pre-War Shophouses	250
Figure 5.22	Five Footway and Arch at Pre-War Shophouses	251
Figure 5.23	Façade of Pre-War Shophouses	253
Figure 5.24	Architectural Detail at Decorative Panel	253
Figure 5.25	Pre-War Shophouse Sketches	262
Figure 5.26	Sketches of Buildings in Kampung Mandailing	263
Figure 5.27	Path Analysis Diagram	264
Figure 5.28	Sketches of Corner & Meet Point	277
Figure 5.29	Edge and District Analysis Diagram	278
Figure 5.30	Aerial View Shows Edges and District in Pekan Papan	279
Figure 5.31	Nodes Analysis Diagram At Pekan Papan	286
Figure 5.32	Nodes in Papan Based on Corners. Junction And Meet Point	287
Figure 5.33	Aerial View Show Nodes	288
Figure 5.34	Diagram Analysis of Landmark/Marker	294
Figure 5.35	Aerial View of Landmark in Kampung Mandailing	295
Figure 5.36	Tabulation of Green Area in Pekan Papan	303
Figure 5.37	The Cultural Landscape in Pekan Papan	304
Figure 5.38	Cultural Activities At Pre-War Shophouses	306
Figure 5.39	Normal Activity of Local Community	306
Figure 5.40	Community Activities at Abandoned Buildings And Cultural Landscape	307
Figure 5.41	Tourist Attraction at Rumah Besar Raja Billah And Masjid Papan	307
Figure 5.42	Education and Promotion Activities Arranged by Local Community	308

Figure 5.43	Conservation Work Done by Local Community	308
Figure 5.44	Art and Awareness on Conservation	309
Figure 5.45	In Depth Interview Session Held at Papan Heritage Gallery	314
Figure 5.46	Agenda FGD1 And Poster of FGD 2	320
Figure 5.47	FGD Session at Dewan Orang Ramai Papan	321
Figure 6.1	Zoning of Conservation Action Area In Pekan Papan	340
Figure 6.2	Coverage Area of Conservation Area In Pekan Papan	341
Figure 6.3	Zoning of Conservation Area in Pekan Papan	342
Figure 6.4	Focal Point and Accessibility to Other Area in Pekan Papan	346
Figure 6.5	The Existing View of Coverage of Conservation Area in Focal Point	346
Figure 6.6	Diagram Shows Conservation Area at Focal Point (FP)	347
Figure 6.7	Existing Condition & Artist Impression on New Look At Pre-War Shophouses	352
Figure 6.8	Existing Condition & Artist Impression on The Restoration Work of Sybil Kathiagasu Gallery	353
Figure 6.9	Existing Condition & Artist Impression on The Restoration Work at Hwa Chao Old School	354
Figure 6.10	The Existing Conditions at Pre-War Shop Houses	356
Figure 6.11	Existing Buildings Along Papan Main Road	357
Figure 6.12	Diagrams Show Conservation Area at PCA1	358
Figure 6.13	Existing Condition & Artist Impression on The Restoration Work Along Main Road at Pre-War Shophouses Of Pekan Papan	363
Figure 6.14	Existing Condition & Artist Impression on The Restoration and Adaptive Reuse at Pre-War Shophouses	364

Figure 6.15	Primary Conservation 2 PCA2	365
Figure 6.16	Aerial View of PCA 2	366
Figure 6.17	Zoning of Conservation Area at PCA 2	367
Figure 6.18	Existing Condition & Artist Impression on the Re-Open And Adaptive Reuse Of Rumah Besar Raja Billah	373
Figure 6.19	Existing Condition & Artist Impression on the Re-Open And Preservation of Masjid Papan	374
Figure 6.20	Artist Impression on The Interior Existing and After Adaptive Reuse of Rumah Besar Raja Billah	375
Figure 6.21	Conservation Area at Support Area (SA)	376
Figure 6.22	Zoning of Conservation Area at Support Area (SA)	377
Figure 6.23	Existing Condition & Artist Impression on The Preservation Work and Placemaking of Backyard Of Pre-War Shophouses	382
Figure 6.24	Existing Condition & Artist Impression on The Placemaking of Backlane	383
Figure 6.25	Existing Condition & Artist Impression on the Adaptive Reuse of House at Kampung Baru Papan	384
Figure 6.26	Existing Condition & Artist Impression on the Adaptive Reuse of House at Kampung Baru Papan	385

LIST OF ABBREVIATIONS

Abbreviations

AD	The Albergo Difusso
FGD	Focus Discussion Group
GCI	Getty Conservation Institution
HUL	Heritage Urban Landscape
ICOMOS	International Council on Monuments and Sites
JWN	Jabatan Warisan Negara
MDBG	Majlis Bandaraya Batu Gajah
OUV	Outstanding Universal Value
PAM	Persatuan Arkitek Malaysia
PHG	Papan Heritage Group
PHS	Perak Heritage Society
RS	Rancangan Struktur
TMC	Taiping Municipal Council
TT5	Tanjung Tualang 5
TICCH	The International Committee for the Conservation of the Industrial Heritage

CHAPTER 1

INTRODUCTION

1.1 Research Background

The formation of old tin mining towns is closely associated with the development of economic activities, which subsequently shaped urban forms consisting of buildings, transportation routes, and accessibility networks. In Malaysia, the development of historic towns and cities was largely influenced by early tin mining activities, port functions, and their roles as state administrative centres. Most of these towns were established during the early 18th century under British colonial administration (Zalina N, 2013). The existence of old tin mining towns represents an invaluable national asset, providing insights into the cultural and historical essence of places and their communities.

In the context of conservation, the UNESCO Intangible Heritage Glossary (2005) defines old towns as physical or symbolic spaces where people meet, interact, and exchange social practices and ideas. The conservation of such towns therefore places significant emphasis on local communities, who are regarded as key stakeholders responsible for safeguarding valuable heritage attributes and sustaining place identity.

The development of old tin mining towns is also strongly linked to economic activities that fostered multicultural interactions among different ethnic groups, forming a unique cultural heritage entity within the country. This heritage can be observed through both tangible and intangible elements that collectively shape the cultural identity of the nation. Ahmad Bashri and Shuhana (2007) emphasize that from a socio-cultural perspective, both tangible and intangible attributes play a crucial role in sustaining the identity of old towns.

From the tangible heritage perspective, the legacy of old tin mining towns is evident in their physical townscape, which exhibits distinctive characteristics and historical significance. These include cultural landscapes, architectural styles, and unique urban forms associated with commercial or administrative functions. Orbasli (2000/2008) describes urban heritage as comprising physical attributes such as building

forms, public spaces, and urban morphology that are experienced by present generations while simultaneously creating heritage for the future.

In addition to physical attributes, intangible aspects play a pivotal role in reinforcing cultural values and supporting local communities. Ahmad Bashri and Shuhana (2007) note that cultural essence, economic activities, and ways of life can be understood through the everyday use of spaces by local residents. Ahmad (2006) further defines culture as a complex amalgamation of spiritual, intellectual, emotional, and material dimensions that symbolize a society's way of life. These dimensions are often embedded within physical settings, transforming them into meaningful social spaces and fostering a sense of attachment.

At present, many old tin mining towns in Malaysia still exist and have undergone conservation initiatives due to increasing awareness of their historical and heritage value. Such efforts are supported by statutory bodies and organizations including the United Nations Educational, Scientific and Cultural Organization (UNESCO), Jabatan Warisan Negara, Tourism Development Centres, local authorities, and non-governmental organizations. However, conservation efforts in some old tin mining towns remain limited, particularly in areas dominated by simple built forms that lack landmark status or perceived structural significance. As a result, many of these buildings have been neglected amidst rapid urbanization, leading to the alteration of their original character and the erosion of authentic town identities. Consequently, the image of old tin mining towns has been compromised, while their social structures and urban distinctiveness continue to deteriorate.

This research explores the potential for conserving urban areas within former tin mining towns in Malaysia that possess distinctive physical characteristics and historical value as cultural heritage entities. Pekan Papan, a former tin mining town located in the Kinta Valley, Perak, has been selected as a case study due to its distinctive characteristics as one of the early town in Malaysia and its historical significance in relation to the nation's economic development and multicultural heritage. This study aims to explore, identify, and evaluate the tangible elements of former tin mining towns by examining definitions and concepts related to physical character attributes that contribute to cultural heritage identity. Recognition of heritage entities through the understanding of built forms and associated activities enhances their unique characteristics, enabling them to be identified, recognized, and remembered as an

essence of heritage. This understanding is fundamental in formulating conservation strategies that can contribute to the regeneration of national cultural heritage identity.

1.2 Problem Statement

This research aims at exploring the existing conservation strategies of former tin mining towns in Lembah Kinta, Perak. Most of these old towns have distinctive physical characteristic and historical value in Malaysia as an essence of cultural heritage entity. However, the current conditions of most of the built forms in these towns were left abandoned and dilapidated especially on the simple building condition that do not stand as landmark or structural significant in urban definition which effected by the rapid development of new township. Therefore, the contribution of these old towns to urban coherence and socio cultural are poorly understood. However, studies found this type of typology of everyday architecture is highly significant towards cultural development in heritage towns (Davis 2006). The research gaps are as follows:

1.2.1 Abandonment and Negligence of Former Tin Mining Towns in LembahKinta, Perak

In Perak, there are much evidence of heritage urban forms which still exist, conserved and promoted as a tourist attraction for the purpose of cultural heritage tourism product. Amongst of the attraction are sites which relate to tin mining activities and have distinctive characteristics and historically significant. For example, Tanjung Tualang Tin Dredge no 5 (TT5) (Fig 1.1) have been gazetted as heritage entity and becomes one of the tourist attractions in Perak. The development of tin mining industry also related to the formation of the tin mining towns in Perak (Figure 1.2). According to Khoo Salma & Lubis (2005), some fifteen mining towns in Kinta that evolved during ‘tin rush’ and its expansion era back in 1880’s until 1900s. Even today, these former tin mining towns in Perak still exist consists of mix cultural built forms between races in Malaysia and rich with its distinctive characteristic especially on its geographical location, unique built forms and aesthetic architectural features which relate closely to cultural heritage entity from local activities and community value. However, due to the closure of tin mining activities, railway stations or due to new development of infrastructure such as new township or roads, most of these former tin mining towns

were left behind in development and being forgotten. In current situations some of the built forms are still vacant and going through the process of conservation. However, most of it were left in abandonment and in dilapidated condition. (Fig 1.3-1.8) From the inventory study of the pre-war buildings done by Badan Warisan Malaysia in 1993, 660 of pre-war buildings still exist in Perak (Table 1.1) while from the author's site visit on 2017 till 2019, these pre-war buildings in 8 old towns in Perak are in same stages of abandonment condition or awaiting to be demolished (Table 1.2).



Figure 1.1 Existing Tin Dredge No 5 (TT5) In Tanjung Tualang

Table 1.1
pre-war buildings which left in Lembah Kinta, Perak from 1992/1993 until 2018.

Towns	**Pre-war Buildings (1992/1993)**	**Pre-War Buildings (2018)**
Kampar	110	90
Batu Gajah	110	90
Tronoh	88	65
Chemor	85	60
Gopeng	85	70
Kampung Kepayang	36	20
Lahat	35	30
Pusing	64	50
Siputeh	18	18
Tanjung Rambutan	28	8

Table 1.2

The Distribution of Ex-Tin Mining Towns Based on the Current Conditions From Site Visit.

Conserved/existing operational/ some were abandoned.	**Exist but in abandonment and dilapidated condition**	**Totally Demolished and replaced by new development**
Batu Gajah	Papan	Tambun
Gopeng	Kota Baharu	Ampang
Kampar	Lahat	Tanjung Rambutan
Chemor	Kepayang	
Menglembu	Siputeh	
Pusing	Kuala Dipang	
Tronoh	Sungei Raya	

Source: Author and Suriati Ahmad.

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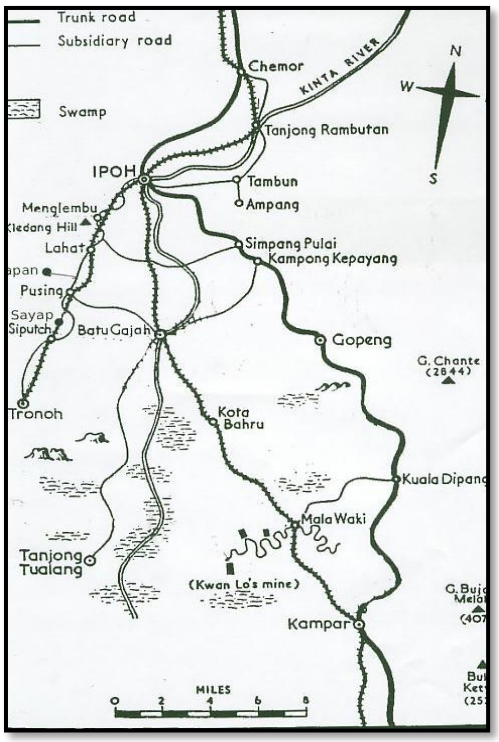


Figure 1.2 The Map of Tin Mining Location and Towns Along the Railway Tracks Which Connect Tronoh, Ipoh to Kampar in Lembah Kinta Perak in the 18th Century. Source: Perak Heritage Society.



Figure 1.3 Former Tin Mining Town in Pekan Papan, Perak Which Were Once A Famous Tin Mining Town in 1881 Left Abandoned and in Dilapidated Conditions

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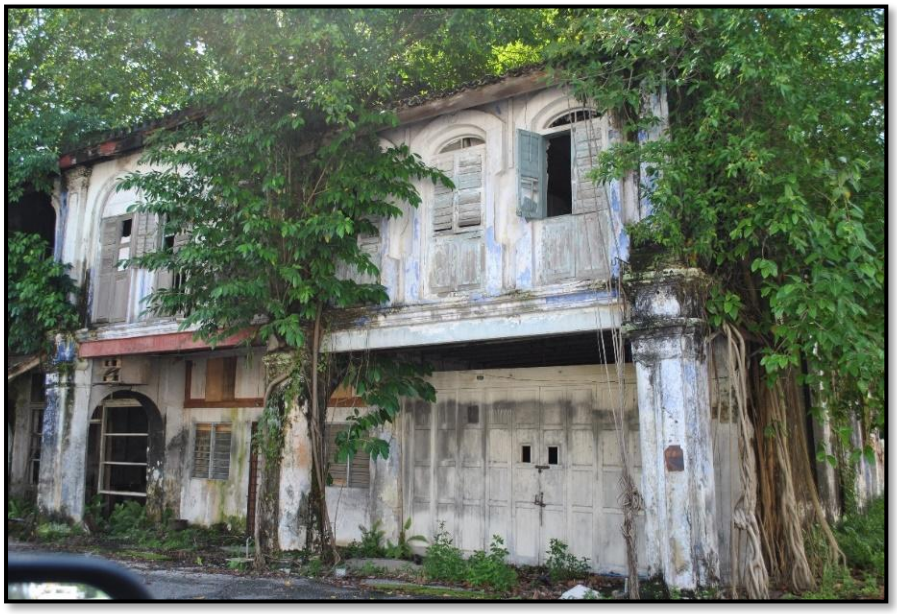


Figure 1.4 Former Tin Mining Town in Lahat, Perak, Once A Busy Town of Former Tin Mining Town Which Opened by French Tin Mining Company in 1882 Were Left Abandoned and in Dilapidated Condition.



Figure 1.5 Former tin mining town in Temoh, Perak which act as one of former tin mining town and transportation station for tin mining activities. Most of the buildings were left in abandonment.



Figure 1.6 Former Tin Mining Town In Sungai Raya, Peral Located At Main Road Towards Simpang Pulai Were Left Abandon and In Dilapidated Conditions.

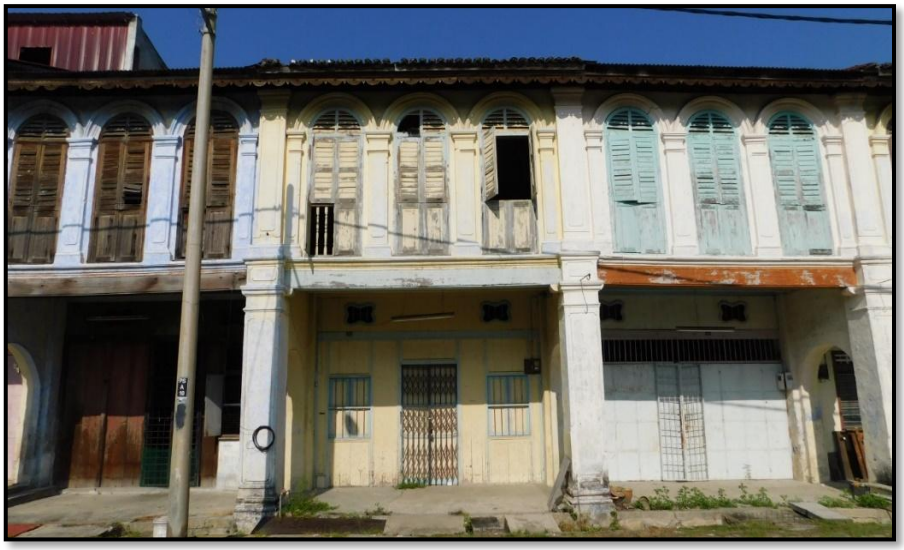


Figure 1.7 Former Tin Mining Town in Siputeh, Perak as One of the Famous Former Tin Mining Towns Which Left Abandoned and in Dilapidated Conditions.



Figure 1.8 Former Tin Mining Town in Kota Bharu, Perak. Once a Transit Town for Tin Mining Activity Now Were Left Abandoned and in Dilapidated Condition.

1.2.2 The lack of understanding on the Town's Physical Characteristic at Cultural Heritage Resources.

Most of the formation of the former tin mining towns have contributed to the richness of its cultural heritage value from its distinctive history and the character of its townscape and architectural features. These towns were opened during colonial period for the purpose of tin mining activities where the development of the towns involved

multiracial involvement. The value of these former tin mining towns has established as distinctive cultural heritage resources where it could be seen from the tangible elements especially the buildings which shown mixture of various architectural styles that suites the Malaysian culture and environment. However, in present, due to rapid development and the ignorance on the existing conditions of the buildings, most of the former tin mining towns in Perak were left abandoned or demolished for the future development. Physical elements which consist of buildings and streets have no longer established activity which caused abandonment (Fig 1.9-1.13). For example, in Pekan Papan and Kepayang, due to no activities, the urban structure such as street becomes unsafe, abandon which contribute the factor of the heritage lost (Jaafar & Harun 2018).The awareness towards conservation of this old towns including areas with attractive character and strong sense of identity seems to be ignored especially from the authorities while the effort from local communities have been taken independently to upgrade and improve sense of identity and place including the historical and heritage buildings. Orbasli (2000/2008) denotes that urban heritage exists as the physical attributes of building forms, public spaces and urban morphology that experienced by the progenies in present day and creating the heritage for future generations.



Figure 1.9 Rumah Besar Raja Billah in Pekan Papan, Perak in Present Condition Was Left in Dilapidated Condition



Figure 1.10 Masjid In Pekan Papan, Perak (Adjacent to Rumah Besar Raja Billah) With Traditional Malay Architecture Yet Still Abandoned.



Figure 1.11 Old Shophouses At Pekan Gopeng, Perak Which Built Forms Along Street with Variety of Façade Which Might Shows Different Architecture Styles or Era of Construction.



Figure 1.12 The distinctive characteristic of urban structure as an earliest well-planned layout and Façade of shop houses in Pekan Pusing, Perak which have unique architectural features, but some buildings were abandoned in present days.



Figure 1.13 Beautiful Street Patterns and Façade of Shophouses in Lahat, Perak Which Opened by French Tin Miners In 1881 But Some of the Buildings Were Abandoned and Left in Dilapidated Condition.

1.2.3 Abandonment of Cultural Heritage Resources

The definition of Cultural Heritage means experiencing the places and activities that authentically represent the stories and people of the past and present. (N Ismail, 2014) Most of the former tin mining towns in Perak have distinctive historical value which contributes to its cultural heritage essence. This could be seen from the formation of the town itself which built through combination of different races such as Mandailing, Rawa, Kampar and Chinese. From tangible elements especially from its built forms have shown its richness in architectural features and cultural activities (Fig 1.14- 1.18). In current conditions most of the built forms in these towns were left abandoned and dilapidated condition due to its simple building condition that do not stand as landmark structural significant in urban definition. As a result, the contribution of these old towns to urban coherence and socio cultural are poorly understood which caused the ignorance, abandonment and replaced by township for the sake of rapid development.



Figure 1.14 The Daily Activities Along the Street Frontage of Old Shop Houses in Tronoh, Perak.



Figure 1.15 The Daily Traditional Business in Gopeng Old Town Perak

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Figure 1.16 One of the Landmarks in Batu Gajah Old Town, Perak Which Have Been an Attraction to Tourist who Love a Peaceful Conditions and Scenery.



Figure 1.17 The Daily Activities (Barber Shop) Of the Shop Front of Shophouses. Location At Pekan Temoh, Perak.



Figure 1.18 The uniqueness of multicultural heritage of Architectural style and façade of old in old town in Perak. Location: Kuala Kangsar, Perak.

1.3 Research Question

The issues and problems in this research are based on the scenario of why most of the old towns in Perak were left in abandonment and dilapidated condition even though it have a significant historical value. The aim and objectives of the study are translated into several research questions to serve as a guideline in conducting the research. These are:

i) What are the distinctive physical characteristics in Pekan Papan as one of the former Tin Mining Town in Lembah Kinta, Perak which could generate the cultural heritage value in conservation?
ii) How could Pekan Papan generate the cultural heritage entity from its physical characteristic towards formulating urban conservation strategies?
iii) What are the suitable approach and reference which could be used as guidance in formulating the conservation strategies in order to safe keep the cultural heritage entity in Pekan Papan, Perak?

1.4 Aim and Objectives

1.4.1 Aim

The aim of the research is to analyse the tangible element from distinctive physical characteristics and its contribution on intangible value on the cultural heritage in Pekan Papan Perak in order to formulate the appropriate conservation strategies.

1.4.2 Objectives

The objectives of the study are:

i) To identify the tangible elements in Pekan Papan which have distinctive characteristics towards formulating urban cultural heritage conservation strategies.
ii) To analyse the unique characteristics of physical elements in Pekan Papan from the tangible and its quality to the cultural heritage elements towards formulating urban conservation strategies.
iii) To validate and propose appropriate conservation strategies for Pekan Papan, Perak from the perspective of physical characteristic for the benefit of nation and cultural heritage entities and stakeholders.

1.5 Research Scope

The scope of study is important to guide and direct the study towards the aim and objective of study. The main aim is to formulate appropriate conservation strategies towards safekeeping the cultural heritage entity from the study of tangible elements through detail investigation of its physical characteristic. This could be achieved from the understanding of the concept of conservation and its implementation in the image of townscape in providing image, identity and how it creates the sense of place through the culture and activities. Pekan Papan, as one of the former tin mining town in Lembah Kinta, Perak which were built during the 18th century have been selected as case study due to its morphology of buildings from different periods from the initial development until the present time and its contribution to Malaysian history in pioneering the economic and transportation development in Malaysia from its tin mining activities and railway station which started in the18th century.

1.6 Limitation of Study

This research focuses mainly on the study from the aspect of physical characteristics in the former tin mining consists of the pre-war colonial buildings built in Pekan Papan which built in the 18th century. This study has covered mainly on the physical characteristics which consist of cultural landscape, urban structure and architectural features which mostly focusing on the built forms in the former mining towns and the exploration of the sense of place which relate to the cultural heritage and communities' activity at the built forms. The challenge of this research is primarily to prove that the physical characteristic as an important element in creating appropriate urban conservation strategies in order to safe keep the cultural heritage entity.

The main case study has focused on the abandoned town where the condition of the buildings is mostly abandoned and left in dilapidated condition. As a result, to obtain proper documentation such as the original floor plan or with any blueprint are mostly impossible. As a result, the study was based on primer documentation such as historical photograph, on site photographic observation, and sketches which relate to the cultural activities of local people,

The information obtained may not be able to point the overall view of the historical essence and the opinion towards effort of conservation due to the building's private ownership such as shop houses and residential area. However, the proposal of the appropriate conservation strategies and cultural heritage entity will be focusing more on the external physical part of the urban area.

1.7 Significance of Study

The formation of former mining towns in Malaysia have evolved and dominated the local cultural landscape and architectural style in the early 18th and 19th centuries. These buildings are significant in shaping local socio-economic aspects and formed parts of contemporary urban fabrics. This study is a significant record and documentation of existing former tin mining towns which currently in abandonment and dilapidated conditions and might soon be demolished due to development. Most of these towns have distinctive characteristics as an embodiment of economy and the close social culture in Malaysia. The detailed study of tangible elements have explored the distinctive physical characteristics from the aspect of urban structure, cultural landscape and architectural features which enriched our historical documentation and relate to the sense of place from the aspect of experiential qualities on the social and cultural activities as part of the old town's unique characteristics that should be understood by future generations. This research also benefits the stakeholders such as local authorities, especially in Perak and other authorities through the awareness from the conservation planning for the old towns and strategy of regenerating the former mining towns as a cultural heritage entity such as tourist destinations, historical sites, source of knowledge which could enhance the local economy and improve the quality of community life.

1.8 Thesis Structure

In order to ensure the overall study, carry out is always in the right direction, one particular purpose must first be drawing up. The purpose of this thesis is to study and analyse the appropriate conservation strategies for towns with unique historically significant, rich with architectural characteristic and typology with multicultural activities but still yet to be abandoned. This research has been divided into six (6) phases as shown in figure 1.19

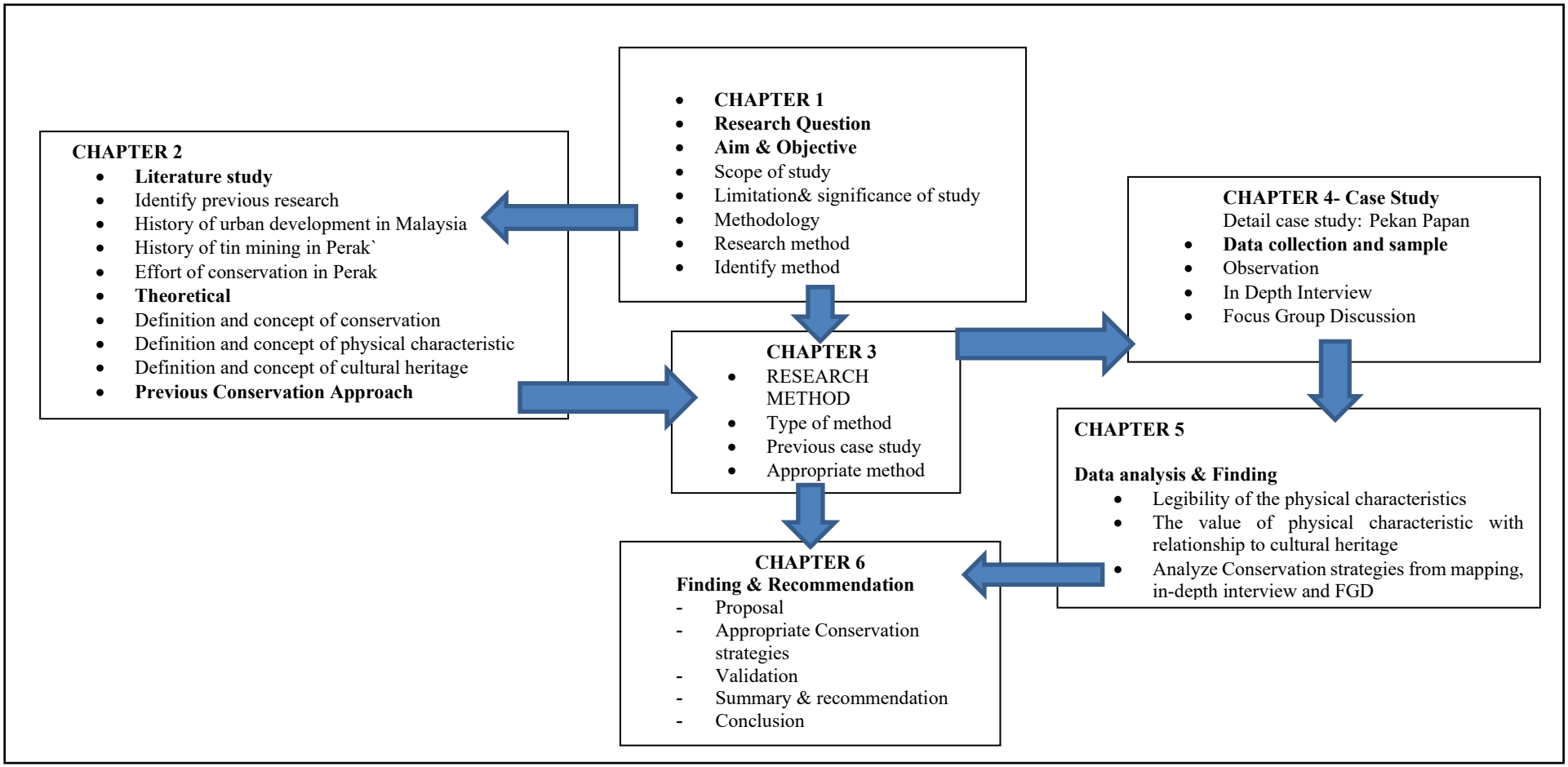


Figure 1.19 Thesis Structure

1.9 Preliminary study

In this phase, aim and objective were identified from the research questions. In this study issue on abandonment of former tin mining towns were raised and the aim and objective of the research was mainly related on how to conserve these towns. Based on the hypothesis based on the durability of the research, the scope of research was determined, and the case study have been defined. This phase has been discussed in chapter 1.

1.10 Methodology

Based on the formation of aim and objective, previous research which based on conservation of old towns have been reviewed, and appropriate research method was identified and discussed in chapter 3.

1.11 Literature Study

Previous research, journals, writings, case studies and books have been identified which relate to the aim and objective of the research which have been discussed in chapter 2. Three main topics were explored based on the theoretical, conceptual and examples as listed:

i. Concept, definition and implementation of conservation
ii. Cultural heritage and its relationship to conservation
iii. Physical Characteristic of town and its relationship to conservation

1.12 Data Collection and Case Study.

Data collection and case study were divided into two parts and to be discussed in chapter 4:

i. Case study of conservation method applied for Pekan Papan. Detail study will include the appropriate application of conservation method and its relationship with its physical characteristics and cultural heritage.
ii. Historical background of old towns in Perak which relate to the development of tin mining activities. This includes the formation of town, the expansion of tin

mine activities which derived to the development of the old towns and how it was abandoned.

iii. Examples of abandon towns and detail analysis and evaluation of Pekan Papan, based on its physical characteristic and cultural heritage value.

iv. Data analysis and evaluation of Pekan Papan on the quality of its physical character and cultural heritage value towards selection of appropriate conservation strategies.

1.13 Data and Sample Collection

In this phase, data and sample have been identified and to be divided into four parts and to be discussed in chapter 3:

i. Primary data resources from books, articles and journal.

ii. Observation on the physical character of Pekan Papan from photograph and sketches based on site investigation.

iii. Historical mapping on the town's morphology to look at the changes and evolution of the town from the year it was formed till now. this could be derived from data from historical maps and authorities.

iv. Opinion from expertise and action from local authorities, NGO and other related institution in term of conservation, future development of the former tin mining towns and promotion of cultural heritage such as Majlis Daerah Batu Gajah, Jabatan Warisan Negara, Perak Heritage Society, local community and expertise.

1.14 Analysis and Findings

Data which have been collected were analysed and synthesised on the contribution of former mining town's physical characteristic and cultural heritage value towards formulating appropriate conservation strategies and will be discussed in chapter 5 & 6.

1.15 Research Strategies

Data collection of the physical characteristic were analysed especially on the relationship between the tangible elements in the town .From the perspective of physical characteristic and its relationship to its cultural heritage value, these data will be used

as appropriate conservation strategies for local community and local authority mainly Papan Heritage Group, Majlis Daerah Batu Gajah (MDBG) and Jabatan Warisan Negara (JWN).The strategies will be validate for future conservation strategies and promotion of its cultural heritage activities such as education and tourism especially in Pekan Papan which will be discussed in chapter 6.

1.16 Summary and Recommendation of Research

At the final part of the research, data was analysed and synthesised in order to obtain findings and recommendation to be validated by the stakeholder and benefit for further research by others experimenter or researcher. The expected output has given an understanding on the tangible quality in the old towns such as the former tin mining of Perak in term of its distinctive physical character such as its urban formation, varieties of cultural landscape and richness of architecture style as a record of heritage towns and conservation in Malaysia. The distinctive physical characteristics were evaluated on the effect to the local community which relate to the built forms and create a new data and resources to regenerate variation of urban cultural heritage attraction in old towns rather than to be a forgotten legacy.

1.17 Conceptual Framework of The Research

Figure 1.20 displays the conceptual framework of the research with regards to the objectives and the methodology of the research. The purpose of the research is to analyse the former tin mining towns in Lembah Kinta Perak from the physical characteristics and its cultural heritage value in order to formulate a conservation strategy. The methodology stages are intended to attain the objectives of the study. The findings could be used to recommend appropriate conservation strategies for the abandon towns in Malaysia

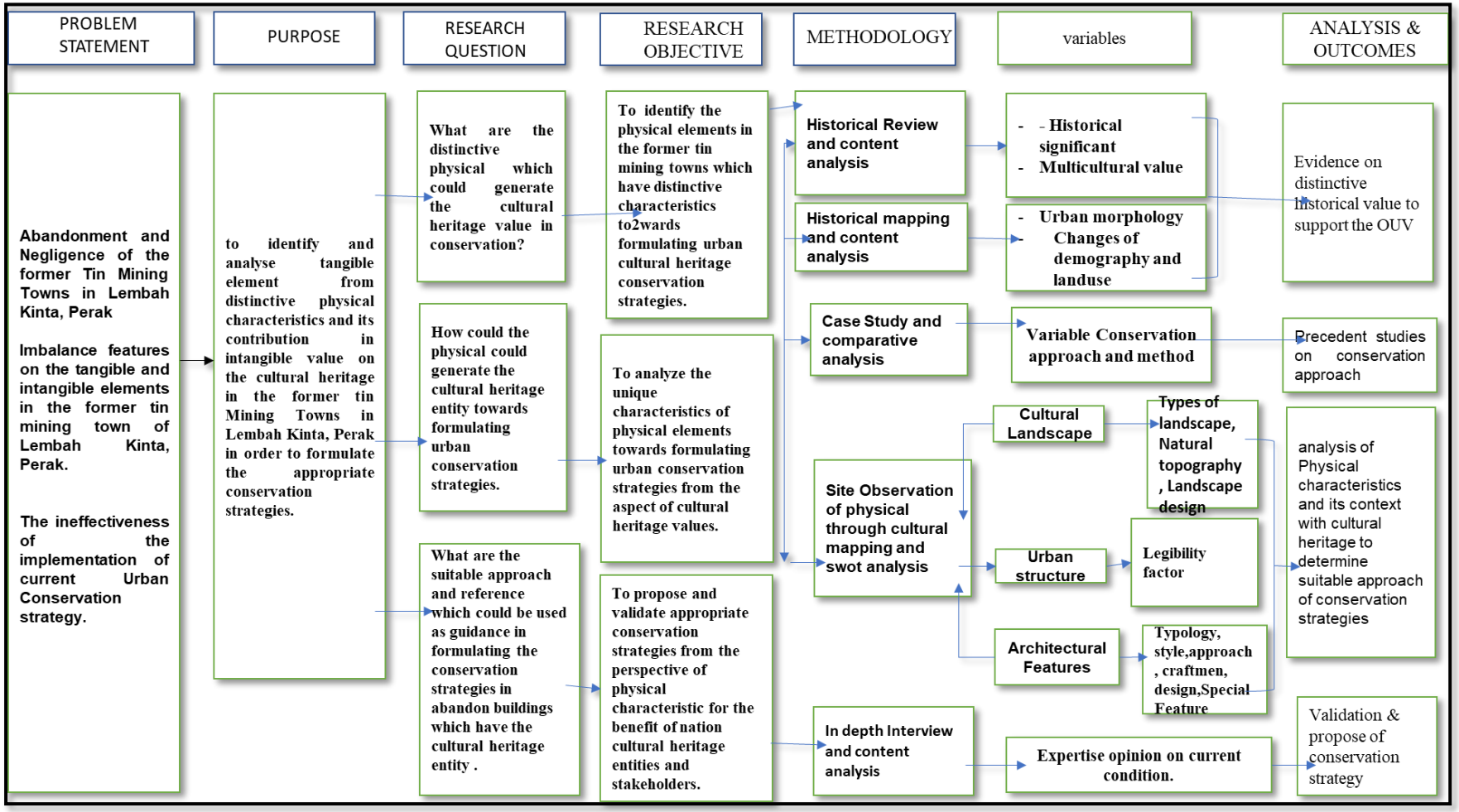


Figure 1.20 Conceptual Framework

1.18 Summary

In this chapter, an introduction to the study was highlighted, issues and the research framework is explained. The issue of the study has derived to the main purpose which is to create an awareness and understanding on the physical characteristic as a resource to formulate urban cultural heritage strategies in the former tin mining town in Lembah Kinta, Perak. The study methodology is according to primary and secondary data gatherings before arriving at analysis and conclusion in which includes some recommendations. This study is significance as a record and documentation of urban built forms which its present condition is in abandonment in dilapidated condition and might be demolished due to development. With this research, the old town's physical character with its richness of landscape elements, urban structure and architecture design, related to historical and cultural heritage as an everyday architecture could be understand by future generations as a purpose for conservation and for the benefit of cultural heritage entity in Malaysia.

CHAPTER 2
LITERATURE REVIEW
APPROACH OF PHYSICAL CHARACTERISTIC & ITS RELATIONSHIP WITH CULTURAL HERITAGE IN CONSERVATION

2.1 Introduction

The literature study of this research reviewed on the research aim and objectives which derived from the main questions on the issues of tangible elements of physical characteristics in old towns and how it could relate to the quality through urban cultural heritage value as an important criterion to formulate the urban conservation strategies. In order to achieve this, four main topics were reviewed as the secondary data of this research which is:

i. Concept and definition of conservation.
ii. Cultural Heritage and its relationship to conservation.
iii. Physical characteristic and its relation to conservation.
iv. Examples of urban conservation strategies which related to physical characteristics and cultural heritage

2.2 The Scenario and Issue of Abandoned Buildings in the Old Towns

In most of the place in the world, development have been started from a small population which created a community from a village and small town. However, as the centuries move on, most of the small towns which once the earliest development to the local were being abandoned and deteriorated due to rapid development. Most of the population has migrated to great commercial and industrial areas which caused closure of business and loss of population. Though, many small towns had been identified as a potential asset both tangible and intangible as an essence of cultural heritage. According to Fielden (2003) historic buildings are the one which gives people a sense of wonder and make them want to know about people and culture that produce it. Throughout

history and across many countries thousands of towns were abandoned for a variety of reasons. A town often becomes a ‘ghost town’ because the natural resources and economic activity that supported its existence have failed to endure. Natural disasters such as earthquakes, landslides, floods and fires, government neglect, armed conflict, disease and environmental contamination are repeatedly the drivers for abandonment and factors that cause the town to lose its population, fading away in time and transforming itself into a place held only in the memory of those who lived there and became abandoned or ‘Ghost Towns”. Abandoned places have been associated with urban and social problems

Baker (1991) describes a ghost town as a town for which the reason for being no longer exists. Shepard’s book “Ghost Cities of China” (Shepard 2015) defined “ghost city” as “a new development that is running at severe under capacity, a place with drastically fewer people and businesses, than there is available space for Abandonment describes a house which is empty and which no one wants to use or live in or whole areas of empty housing or ‘area abandonment’ which can be caused by the occupier vacating a property without giving any notice, or by the owner, believing the property to have zero or negative (fig 2.1 & 2.2).

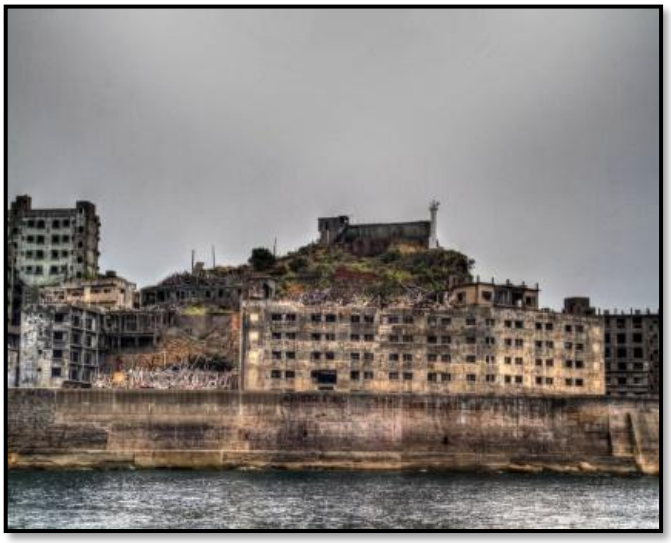


Figure 2.1 Hashima Island, Japan Was Once a Rapid Industrial and Coal Mine Town and Closed in 1974 Due to Coal Reserves Hearing Depletion.
Source: Https://Whc.Unesco.Org/En/Soc/4085/



Figure 2.2 Examples of Towns Which Were Left Abandon Due to Causes Such as People Moving Out and Disaster and Soon Called as 'Ghost Town'. Chernobyl, Ukraine.Source: Https://Twominutebooks.Com/Chernobyl-Summary

2.2.1 Issues of Abandon towns in Malaysia

Malaysia has an interesting socio geographical and cultural history which includes historical sites and old towns that bear witness to the rich form and evolution of the urban tapestry (Harun and Jalil, 2012). Historical studies have found that urban characteristics in the Malay Peninsula dating from the 13th to the 18th century consists of the Melaka Sultanate settlements, the Malay Forts, early Malay Towns and Colonial Towns. During this period of urbanization, the evolution of Malaysian urban towns and its architecture influence relate closely to the contributions of various races and culture (fig 2.3 a & b) which such as Chinese, Indians, Indonesians Malay and Europeans which formed vital part in the formulation of Malaysian Architectural Heritage (Esmawee, 2008).



a



b

Figure 2.3 Evolution of Ipoh, Perak in 18th Century (A) And 2023 (B) Which Influenced by Various Races as The Essence Of Cultural Heritage. Source: Perak Heritage Society & Author

The growth of Malay towns originated from the Kampungs or villages which mostly located closely to the rivers as a strategic transportation routes and water resources supply which formed an infrastructure for port and trading activities. These towns and cities were founded by the Malay Rulers which esteemed as Royal Towns. The urban morphology and figure-ground of estuary towns in the Malay States have almost identical characteristics. The royal institution was the focal point of the urban morphology where the formation of the town started with the palace while other building typologies such as mosques, buildings for ministerial use, government buildings, market, commercial stores and public dwellings were built around the palace grounds (fig 2.4). Islamic influences were also influenced the urban morphology of Malay towns. In some region, mosques and madrasahs have been built as an important

landmark in the town centres. These types of buildings consist predominantly of Malay people, and the Malay architecture style is recorded as the earliest in the evolution of Malay Architecture (Esmawee, 2008).

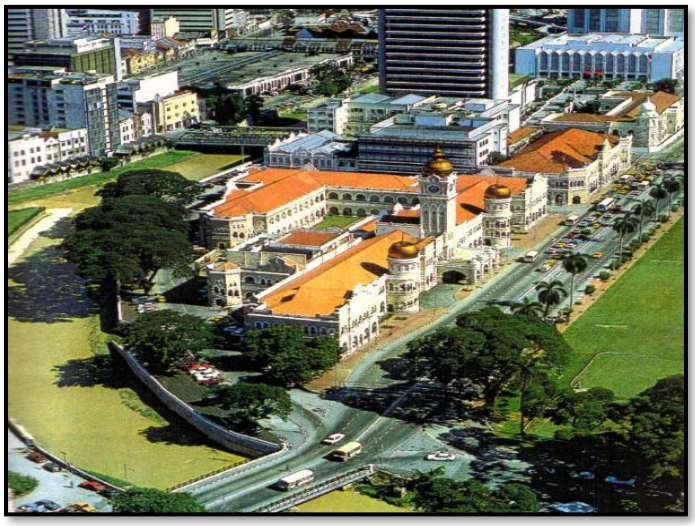


Figure 2.4 The Formation of Kuala Lumpur which Started Along Klang and Gombak River. Source: Jabatan Warisan Negara

In Malaysia, abandonment of towns happened where "new towns" come in, to disperse excessive concentration in the Old Town and to sustain the imploding population. However, factors such as subsequent improvements of transportation and telecommunication services in these places have then siphoned away the urban functions from their older counterparts (Badaruddin et al., 2001). Rapid motorisation has also facilitated depopulation and ex-urbanisation of the traditional core (Clark, 1989; Steinberg, 1996). Having lost their prominence, the older towns gradually degenerate (Steinberg, 1996, 2008). Fee (1998) expressed that to lose these buildings, however, is effectively to obliterate historical memories, and there is now increasing pressure from various segments of the community to conserve the nation's historical heritage. In present days, the condition of heritage buildings in the old towns seems to be ignored by the government. In the study conducted by Fatimah et al. (2011), the inventory study of Malaysian heritage buildings conducted by the Department of National Museum in 1992 was estimated to be less than 35,000 pre-war buildings in 265 cities surveyed throughout the country and accordingly it should be conserved (Syed Zainol, 1995). According to A. Ghafar (2009), most of the heritage buildings were not well preserved and most of them were in obsolete conditions due to building damage factors. Even worse, when some of the heritage buildings are being threatened

as they are ignored by the original ownership and demolished on the insistence of development as well as lack of perseverance of society in order to conserved heritage buildings (Hamilton & Zuraini, 2002). Most of the old towns were neglected due to no activities, physical elements which have no longer established any activities which caused abandonment and the urban structure such as buildings and street become unsafe, abandon which contribute the factor of the heritage lost (Ja'afar & Harun 2018) (fig 2.5-2.7).



Figure 2.5 Current Condition of Old Towns in Alor Setar, Kedah Which Some of the Buildings Were Left in Dilapidated Conditions.



Figure 2.6 Current Condition of Old Towns In Kuala Dungun, Terengganu. The Earliest Shophouses Built by Malay and Chinese Population which Function as Main Commercial Building, But the Condition was Left in Dilapidated Conditions.

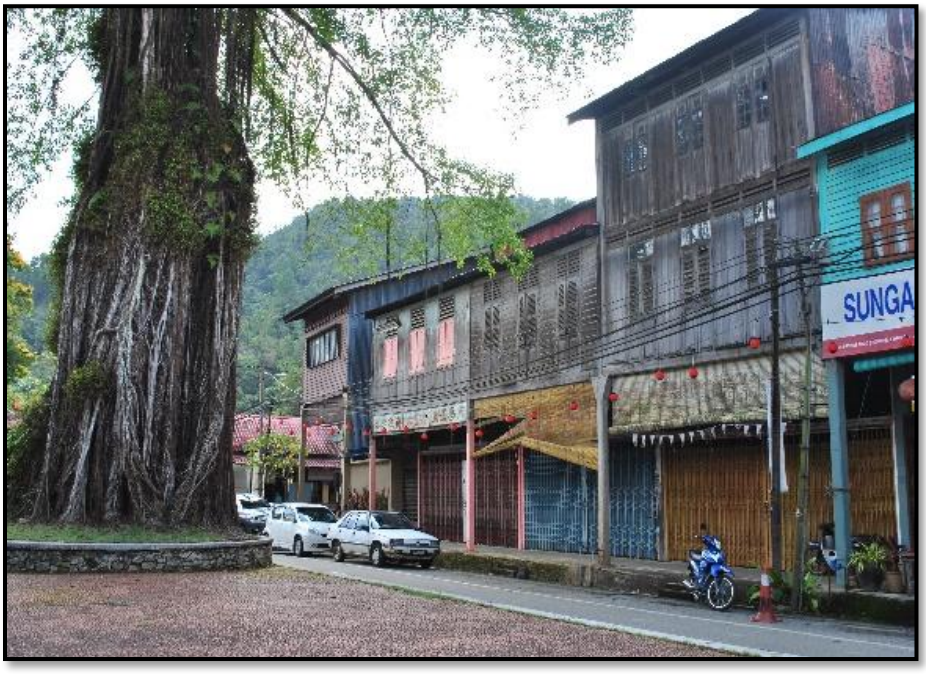


Figure 2.7 Current Condition of Old Towns in Sungai Lembing, Pahang, The Earliest Shophouses Built for the Workers Of Tin Mining. Some Buildings Were Left in Dilapidated Conditions.

2.2.2 Tin Mining Towns as Part of Heritage Area

Most of the research on small towns have identified a number of indigenous, imported and eclectic buildings which have its heritage identity and have been a focus of conservation effort and located in most popular site which have historical or economic significance to the country or as focal point of tourist attraction (fig 2.9-3.1). One of the categories of towns are mining towns which could be categorized under mining heritage. According to Pearson & McGowan, (2000), mining heritage places are 'the *sites which minerals and other minerals of value were dug from the ground. The broader context in which mining occurred and those other places, including whole landscapes, might in themselves be of heritage significance because of mining"*. UNESCO (2005) acknowledges historic mining landscapes as being part of their cultural landscapes definition that demonstrates interaction between man and its environment. According to Dozolme , (2013) there are more than 60 industrial sites under the UNESCO World Heritage List and 24 sites related to mining areas and landscapes These historic mining sites consists of physical evidence and its processing activity which include mine workings, machinery, quarries, shafts, bridges, road/tracks, surface dumps, slag heaps, surface structures and settlements patterns (Ballinger, 2012; Drew, 2012). Pearson and McGowan (2000) have proposed a very detailed list of mining features that should be recorded as follows Suriati Ahmad and David Jones (2013):

i) Mine working and operational areas from all periods of a mine's operation, shafts, headframes, winders, engines, boilers, equipment and machineries, mullock and tailings heaps, shower blocks, administration buildings etc.
ii) primary processing batteries and mills (crushers, roasters, chimneys and flues etc.) and secondary
iii) processing plant, such as smelters and refineries (huts, barracks, tent sites, village sites and buildings, cemeteries, etc.)
iv) Transportation-roads and tramways associated with the movement of mining supplies and minerals.
v) infrastructure to support the mine, such as water supply (dams, races, pipelines) timber mills, smithies' sand foundries, brickworks, hydro-electric plant.
vi) Aspects of settlement stimulated by mining agriculture and market gardening, closer settlement, port development, railway extension.

vii) Landscape modification due to mining such as deforestation, pollution induced barren areas, silted dams, open cuts, embankments and mounds, tailings dumps, dredged streams, modified vegetation

The Nizhny Tagil Charter for Industrial Heritage, that was drafted by the International Committee for the Conservation of Industrial Heritage (TICCIH) in 2003, asserts that buildings and structures built for industrial activities, the processes and tools used within them and the towns and landscapes in which they are located, along with their tangible and intangible manifestations (fig 2.8-2.10), are of fundamental importance (The International Committee for the Conservation of the Industrial Heritage (TICCIH), 2003). This Charter highlights the process of identifying values of industrial heritage that involves identification, survey, recording and assessment to identify heritage significance. The Nizhny Tagil Charter was adopted by TICCIH to form the Joint ICOMOS-TICCIH principles for the conservation of industrial heritage sites, structures, areas and landscapes in 2011, and these principles have been recognised internationally by the UNESCO. The first principle emphasizes understanding and documentation and the second principle highlights the conservation and protection of industrial heritage sites, areas and landscapes (ICOMOS-TICCIH, 2011).

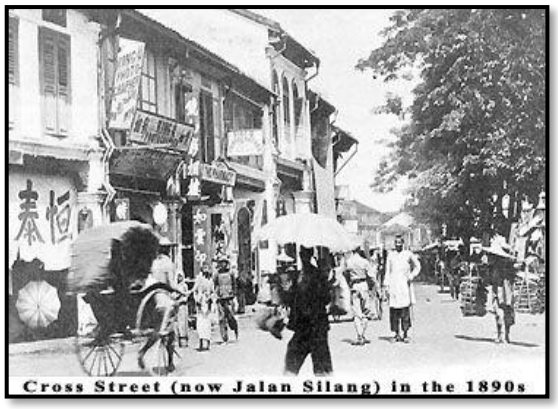


Figure 2.8 The Old Picture of Jalan Silang, Kuala Lumpur Which Once a Centre for Mining Town and One of the Busiest Cultural Attractions in Lembah Kelang. Source: Arkib Negar



Figure 2.9 The Old Picture of Gopeng, Perak Which once a Centre for Mining Town in Lembah Kinta: Source: Arkib Negara



Figure 2.10: Old Pictures Show Former Tin Mining Town in Malaysia in Pekan Papan, Perak Which Have Developed \as One of The Busiest Towns in Lembah Kinta. Source: Perak Heritage Society.

2.2.3 Evolution and Abandonment of Former Tin Mining Towns in Malaysia

In the last quarter of the 19th century shows an important change of the urbanization especially during the British colonial towards the state in economy activities especially in tin mining and rubber industry (Yeang 1992). These economic activities have generated the formation of infrastructures such as railways, roads which linked big towns such as Kuala Lumpur, Ipoh, Georgetown and Johor Bharu. The tin mining activities also indirectly led to the opening of smaller towns. The characteristics of urban forms developed by the British consists of building typologies such as government, public and commercial, administration buildings, schools, shop houses, police station, post office and resident's headquarters which emphasized inspiring architectural style as embodiment of the ruler's power.

In the case of former mining old towns in Malaysia, the formation of the built forms which created a town have various influences from the exploration of various cultures such as Colonial, Chinese and local Malay architecture where their main aim was to gain wealth through the tin-mining industry. This can be seen from the existence of remaining tin dredging of Malaysia in Tanjung Tualang, Perak and Dengkil Selangor (fig 2.11 & 2.12).



Figure 2.11 TT5 in Tanjung Tualang, Perak.



Figure 2.12 Tin Dredging in Dengkil, Selangor

The existence of the old tin mining towns in Malaysia have retained its uniqueness of its tangible and intangible appearance. This could be seen from the aesthetic value of its physical components on the built forms and its authentic activities as an image of the old towns. Most of the built forms have contributed to urban form and townscape with variety of architectural style from the facades of different styles which form a colourful edge to the streets. For example, Chan (1989) clarifies that the decorative styles which emerged on the facades of Malaysian old shop houses varied from neo-gothic, Baroque and classified to Palladian. This range of styles can be found in single street shop houses and the construction of structures of the old heritage buildings which rich with architectural value is evidence that exposes the existing features of the construction techniques, and this is important in the retention of a legacy (Vicente et al. 2018). Even though the principle and the styles of the buildings are the same, they are assembled on different street and town which embodied a different skills of their individual designers and makers, and the decisions of and the idiosyncrasies of successive town's authorities. In term of design, most of the built forms in the old tin mining towns in Malaysia are built to basic pattern, both in floor plan and elevation. Although both aspects have been altered over the course attire.

The formation and evolution of former Tin mining towns could be reviewed from the history of tin mining in Malaysia since 1848 (fig 2.13), where tin was discovered in Perak especially in Larut District which formed towns such as Taiping and Larut Matang. The first tin rush in Larut occurred in 1861 where tremendous rise of the international prices of tin which forced Chinese immigrants to explore and open smaller tin mines in uncultivated land or borrowed indigenous Malay land in Kinta District. As a result, new tin mining towns were opened which most of it were ruled by the Malay Kingdom. The historic town and city developments in Malaysia consists of the early mining industry, port city and work as a state administration centre (Norzalina & Jalil 2012). According to Khoo Salma (2005), 15 tin mining towns were opened in Lembah Kinta during this period from 1885 to 1900 including Gopeng, Papan, Lahat, Kampar, Temoh, Tambun, Ampang, Tanjung Rambutan, Menglembu, Chemor, Chenderiang, Tanjung Tualang, Pusing, and Kota Bahru which still exist until nowadays (fig 2.14 a &b) & (fig 215 a& b).

The major characteristic of these towns are mostly buildings which still exist such as shop houses, town houses, which became a popular building type in urban areas where substantial Chinese population has settled with collaboration of local Malay population. The decline of tin mining operation has linked to the collapse of world tin market in 1985 which led to the abandonment of mine sites and its township in Perak. According to Siti Norlizaiha (2014), much of the Pre-War Malaysian built forms which built during this era were still visible as an old town as part of Malaysian pre-modern history and as essence of heritage tourism and have a treasure prove of unique heritage in term of history, architecture, identity and culture including urban morphology and the way to safekeeping this values are through the constion approach.

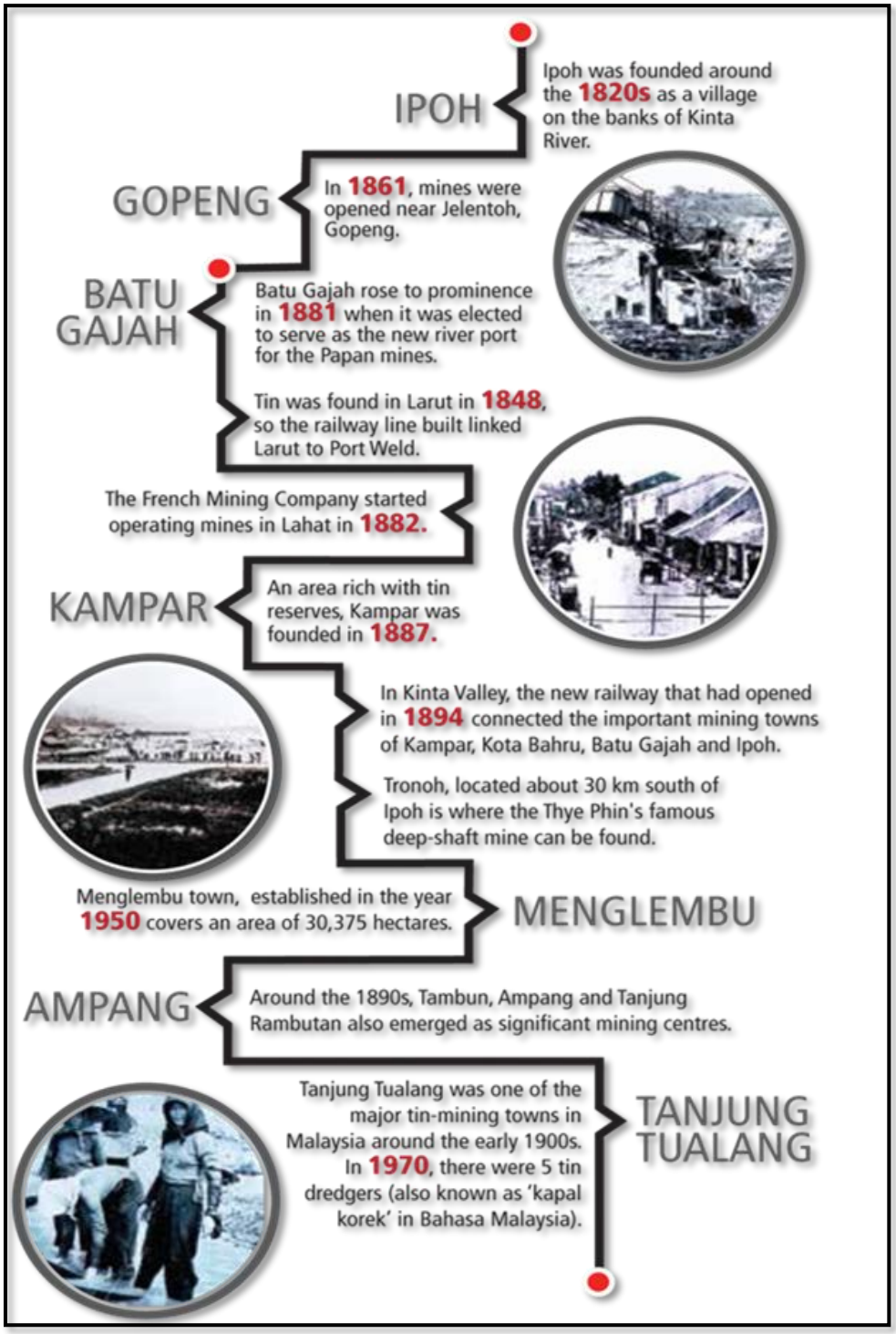


Figure 2.13 Evolution of Tin Mining Towns in Lembah Kinta, Perak
Source:Perak Heritage Society.



a b

Figure 2.14 Old Shophouses at Former Old Tin Mining Town in (A) Temoh and (B) Gopeng, Perak Which Still Used by Local People for Commercial Activities.



a b

Figure 2.15 Buildings in Former Tin Mining Towns in (A) Pekan Papan And (B) Temoh Station, Perak Which Rich With Architectural Values but Have Been Abandoned

2.3 Definition and Concept of Conservation

Conservation means all measures and actions aimed at safeguarding tangible (physical) and intangible (nonphysical e.g. culture/tradition) cultural heritage while ensuring its accessibility to present and future generations. (UNESC0, 2012) Conservation activities include: examination, documentation, treatment, and preventive care. All this work is supported by research and education. Conservation embraces Preventive conservation, Remedial conservation and Restoration. Based on Historical Heritage Criteria UNESCO, Heritage Conservation could be divided into three parts:

i) Natural Heritage
ii) Cultural Heritage (monuments, group of buildings, Sites)
iii) Combination of natural and cultural heritage.

Source: National Heritage Act 2005

2.3.1 Type of Conservation

Conservation practice started as the act of appreciation of heritage. It is a way to maintain, restore and repair heritage which has been left by our ancestors, in the form of architectural remains or artifacts, as quoted by Earl (2003). Article 1.4 of the Burra Charter of ICOMOS (1999) stated that conservation "includes all the processes of looking after a place so as to retain its cultural significance which encompasses the activities that are aimed at the safeguarding of a cultural resource so as it retain its historic value and extend its physical life". Conservation shapes the society in which it is situated, and in turn, it is shape by the needs and dynamics of that society. In Section 2 of the Malaysia National Heritage Act 2005 (Act 645) the definition of conservation includes preservation, restoration, reconstruction, rehabilitation and adaptation or any combination thereof. The Malacca Enactment No. 6 (1988) and the Preservation and Conservation of Cultural Heritage Enactment (1988), define conservation as a process of looking after a cultural heritage or a conservation area so as to retain its significance, including its maintenance, preservation, restoration, reconstruction, adaptation or a combination of two or more of these.

The term conservation itself has varied meanings and connotations. In certain contexts, "conservation" has broad meaning, signifying the entire field or realm of cultural heritage preservation, from academic inquiry and historical research to policy

making to planning to technical intervention. At the same time, “conservation” is used to indicate physical intervention or treatment specifically. This definition of conservation refers to the more technically oriented functions of the broader field. But the broader definition refers more widely to conservation as a complex, diverse, and even divergent social practice and it is this definition that needs to be understood. .

2.3.2 Ascendants of building conservation

To achieve the action of conservation, ascending Degrees of Intervention towards Building Conservation consists of:

i. Preservation- Deals directly with cultural property. Its objective is to keep it in existing state. Repairs must be conducted when necessary to prevent further decay (fig 2.16).

ii. Restoration- To revive the original concept or legibility of the object (ref fig 2.17).

iii. Rehabilitation- To keep it in use which involve adaptive alteration and fewer changes.

iv. Reproduction- Copying an artifact in order to replace some missing or decayed parts, generally decorative to maintain aesthetic harmony

v. Reconstruction- Done for historic buildings that are damaged by fire, earthquake or war.

(Source: National Heritage Act 2005 page 98 & 99)



Figure 2.16 Istana Seri Menanti, Kuala Pilah, Negeri Sembilan. Examples of Building Which Have Been Preserved as Its Original Form. Source: Jabatan Warisan Negara



Figure 2.17 Bangunan Persatuan Sejarah Terengganu, Kuala Terengganu, Terengganu. Examples of Building Which Have Been Restored FromThe Original Form into Building Which Represent the Richness of Local Architectural Value.Source: Jabatan Warisan Negara

Research by the Getty Conservation Institute (GCI) in 2005 and its collaborators has identified some fundamental ideas and concepts that would contribute directly to the development of conservation framework:

i. In order to assure the relevance of all conservation work to society, the field should continue efforts to integrate and contextualize the varied spheres of cultural heritage conservation.

ii. As They relate the varied spheres of conservation, the recognition of objects and places are not, in and of themselves. What is important about cultural heritage are the meanings and uses that people attach to these material goods and the values they represent. These meanings, uses, and values must be understood as part of the larger sphere of sociocultural processes.

iii. Conservation should be framed as a social activity, not only as a technical one, bound up with and shaped by myriad social processes (the subjects of social sciences and humanities), as are all aspects of culture and the visual arts. This framing is critical to enabling the conservation field to realize the goal of supporting a civil society and educating with a balanced body of knowledge from the next generation of conservation professionals.

iv. As a social activity, conservation is an enduring process, a means to an end rather than an end in itself. This process is creative and is motivated and underpinned by the values of individuals, institutions, and communities.

v. Heritage is valued in myriad and sometimes conflicting ways. These different means of valuing influence negotiations among various stakeholders and thus shape conservation decision making. Conservation, as a field and as a practice, must integrate the assessment of these values (or cultural significance) in its work and more effectively facilitate such negotiations in order for cultural heritage conservation to play a productive role in civil society.

2.3.3 Concept and Definition of Urban Conservation

In order to have mutual understanding on the appropriate conservation strategies for the old town, the concept of urban conservation have to be clearly defined and understood. The concept of Urban conservation is not merely to conserve the building but to preserve the whole ambience including cultural significance (Thorsby, 2002; Cohen, 2001). Urban conservation is also about how people live, work and play in an area, as described by Tan (2006):

> *How they live is inextricably linked to (historical) buildings. buildings that house their abodes; buildings where they earn their living; buildings whose shape, size and locality form the essence of their lives and how they carry it out.*
> *Source: An 2006*

Architectural historian Daniel Bluestone (2011) cautions that change must be understood as part of the richness of heritage and that, in the work of conservation, "understanding change is as important as understanding original intent." Conservation is a complex and continual process that involves determinations about what constitutes heritage, how it is used, cared for, interpreted, and so on, by whom and for whom. The decisions about what to conserve and how to conserve are largely defined by cultural contexts, societal trends, political and economic forces which themselves continue to change. According to Siti Norlizaiha (2010), the concept of conservation of the city of illumination in improving the work is recovering from the state of the building using materials that are almost possibly the same as when the building was first constructed including:

a) Improvement/restoration of the work improves recovery by preserving the authenticity of its architecture and material to a certain period thought to be appropriate or as good as the origin and so on to the original use.
b) Reconstruction (carried out on historical buildings that have been destroyed by human factors and the environment. The construction uses materials and techniques originating in the original form.
c) Preservation/restoration of work to ensure that the place is in its original state and prevented from any obsolescence or damage.

Urban conservation as a development strategy which is incorporated in land-use planning and zoning has gained popularity throughout the world since the last century. The first description of building conservation policies can be traced to 1877, in William Morris's manifesto for society for the protection of ancient buildings. Other well-known conservation doctrines include the Venice Charter (1964), the Florence Charter (1981) and International Council on Monuments and Sites (ICOMOS) Charter which are the principles for the analysis, conservation and structural restoration of architectural heritage (2003). These charters define the purpose and principles of building conservation as anthropologist Lourdes Arizpe argues the much debated point that cultural heritage is one of the factors in addressing the deepest, shared human longings for love and beauty and cooperation has universal significance or etic meaning, in addition to its more culturally bound emic meaning. Urbanist Mona Serageldin focuses on the challenges of preserving vernacular, as opposed to monumental, cultural heritage in the city centers of countries in transition (less-developed countries, former Soviet states in transition from socialist to democratic systems). The myriad pressures faced by these cities spurred by global economic and demographic shifts, sea changes in national politics and nation states tend to deteriorate the historic fabric of housing, shops, squares, and streets. One aspect of this development has been that historic architectural fabric is valued increasingly for its use value.

2.3.4 Implementation of Urban Conservation in Malaysia

In Malaysia, urban conservation has been implemented since 1960s which can be considered as a starting point for conservation activity for urban area in Malaysia with the introduction of the Antiquities Act 1976 (Act 168), which has further strengthened this activity in Malaysia. The implementation of urban conservation in Malaysia is classified into three general categories, which are building conservation, area conservation and cultural conservation (Mohamed et al., 2001). According to Ahmad (1998), the concept of urban conservation was introduced in Malaysia in the early 1980s, and several cities such as Kuala Lumpur, Georgetown, Malacca and Kota Bharu have since adopted it. It is very important to perceive in positive manner all efforts geared towards the conservation of heritage cities because conservation is not only crucial for national development but to develop pride for their heritage in future generations (Ahmad, 1998: p62). For many years, the idea of protecting historic

buildings in the form of conservation, preservation, adaptive reuse or restoration was not given the same importance as new development (Said, 2007). jurisdiction of various agencies at different levels. Government agencies, both Federal and State, play important roles in supervising all matters related to conservation and preservation of historic buildings. Besides these agencies, there are a few other public organizations established by groups of architects, planners, journalists, artists and historians, such as the Malaysian Architects Association (PAM) and Malaysian Institute of Planners, to support and maintain the national heritage Act 2005 under the supervision of Jabatan Warisan Negara (Ahmad, 1993). However, most of the work to historic buildings in Malaysia would, by the definition followed in the UK, be considered as restoration, and maintenance of individual buildings (fig 2.18- 2.21).



Figure 2.18 Conservation of Old Shophouses at Kuala Kangsar, Perak. The Existing Façade Have Been Preserved as Part of the Urban Image to Beautify Surrounding Area.



Figure 2.19 Conservation at Chinatown, Alor Setar, Kedah. The Building Façade Have Been Restored and Preserved to Its Original Form.



Figure 2.20 Conservation of Back Lane Area at Jonker Street, Melaka Have Been Restored to Create Vista Through Urban Streetscape.



Figure 2.21 Old Mansion at Lebuh Acheh, Penang which Have Been Restored to Maintain Its Original Form and Cultural Identity.

2.3.5 Issue of Urban Conservation in Malaysia

In current conditions, there seems to be imbalance approach on the urban conservation in Malaysia. Many buildings especially in the old towns have been neglected even though it has a historically significant value. The issue happened mainly on the needs of rapid development, different approach and the lack of understanding from the authorities and it became worse when dealing with issues such as ownership and type of building which should or should not been listed. When it comes to authority, the traditional approach of conservation that concentrates on building preservation such as listed buildings will not safeguard the urban heritage and secure the sense of place of the historic cities (Idid, 2005; Shamsuddin and Sulaiman, 2002). The sad state of historic conservation in Malaysia was long left untold and ignored until the Federal government recently realized the importance of historic buildings as living evidence of the growth and success of the country (Said, et al, 2013). Many historic and cultural significance that are worthy of preservation for sustainable development in Malaysia.

However, uncontrolled development has resulted in the building of new buildings and facades sandwiched in between old buildings (Wan Ismail, 2012) (fig2.22).



Figure 2.22 The Condition of Rumah Degil, Kuala Lumpur After Restoration and Relocation Source: Badan Warisan Malaysia

As agreed by Fielden (2003) and Orbasli (2008), the living heritage told stories of the survival of the ancestors, the development of the country and the way of life of the people that had formed the identity of the nation, which is unique in its own sense. Without proper supervision and maintenance of historic buildings, the country will eventually lose its historic townscape that portrays the uniqueness of a city (Idid, 1995: p1, Said, 2011). For many years, the idea of protecting historic buildings in the form of conservation, preservation, adaptive reuse or restoration was not given the same importance as new development (Said, 2007). In an increasingly rapid development process, various approaches were presented to address the municipal issues. Similar to the development of the city and urban renewal, the approach of the city is one of the most frequently used approaches in ensuring that the city is well-established in line with the developments and its modernization. Yet another approach should not be set aside in development and urban development (especially for the old towns and their property is the conservation of the city which the aims is to create a balance between modern development and ancient relics.

In the developing countries, conservation is only a minority interest compared to another urban asset development (Pearce, 1989; Kong and Yeoh, 1994). In fact,

conservation is more often seen to be an obstacle to urban real estate development. It is acknowledged that if a building is old and deteriorating, some of its archaic services may affect its value because the cost of preservation and restoration will be high. If a building is protected to some extent by public policy, then the accompanying restrictions on renovation and building use may affect the property's value and marketability. In addition, heritage buildings incorporate intangible values due to culture and architecture character. These intangible values are very hard to price monetarily (Pickerill, 1997; Thorsby, 2002). In China, according to the conservation principle for living heritage, sites that still retain their original functions, particularly those whose functions have become an integral part of their value, should be encouraged to maintain their original mode of use. For example, the revised China Principles considers the continuation of a site‘s original function to be an aspect of conservation mainly because physical remains are overemphasized during the conservation of historic Chinese districts, villages, and towns, whose original function, social structure, and cultural tradition tend to be neglected. In this case, the preservation of original function is not only about the use of cultural heritage but about authenticity principle as well.

The challenge which faced by conservators in urban conservation are the assertion that singular building component can represent entire cultures, past or present, is now untenable in the face of our understanding of diversity within cultures and, as David May bury Lewis (2002) argued, the projection of an identity-based politics. Preservation and conservation work often unfolds amid unstated or undertheorized assumptions about the importance of conserving things The efforts to research the values and other social contexts of conservation highlight the broader resonances of cultural heritage, which transcend the aesthetic model and reflect the myriad ways in which people invest meaning in and come to understand the buildings, landscapes, places, and objects around them (fig 2.23 & 2.24). One of the most useful research themes regarding the role of values in urban conservation is the characterization of cultural heritage as a dynamic process. For instance, Suad Amiry (2012) insisted that cultural heritage is “never static but always changing. Erik Cohen (2011) declared that cultural heritage can be “destroyed or impacted, but new cultural forms reappear. Along with the process of disappearance of culture, there is the production of culture.”

One of the most useful research themes regarding the role of values in urban conservation is the characterization of cultural heritage as a dynamic process. Article

33 of the Recommendation concerning the Safeguarding and Contemporary Role of Historic Areas of UNESCO says,

Protection and restoration should be accompanied by revitalization activities. It would thus be essential to maintain appropriate existing functions, in particular trades and crafts, and establish new ones, which, if they are to be viable in the long term, should be compatible with the economic and social context of the town, region, or country where they are introduced. The cost of safeguarding operations should be evaluated not only in terms of the cultural value of the buildings but also in relation to the value they acquire through the use made of them. The social problems of safeguarding cannot be seen correctly unless reference is made to both these value scales. These functions should answer the social, cultural and economic needs of the inhabitants without harming the specific nature of the area concerned. A cultural revitalization policy should make historic areas canters of cultural activities and give them a central role to play in the cultural development of the communities around them.

Recognising the inherent values that the heritage buildings possess, the purpose of conservation is to keep the buildings alive, retain and reveal their cultural significance. Yet conservation always involves a certain degree of intervention. This intervention inevitably results in some form of change to the historic fabrics. As S. Cantacuzino (2011) says, "Preservation *in the old sense is an act of embalmment, conservation in the new sense has become a creative act which aims at enhancing the life of the people." Indeed, it is accepted that heritage buildings should continue to retain their cultural significance and be prominence. At the same time conservation should allow for new life and activities to be introduced.*



Figure 2.23 Scenery at Pekan Tronoh, Perak Where the Building Conservation which Maintain its Original Form and Local Activity which Relate with Cultural Heritage Value.



Figure 2.24 Gateway of Chinatown in Kuching, Sarawak as a Nodes and Sense of Welcoming to The Old Shophouses as Part of Cultural Heritage Value to Be Understood by People.

2.4 Definition and Concept of Cultural Heritage in Urban Conservation

In this chapter the definition and concept of cultural heritage which relate to formation and essence especially in old town have been discussed in order to identify the elements which should be consider in creating the urban conservation strategies. Issues and problems of regarding cultural heritage conservation were reviewed through the understanding of definition and policies of cultural heritage from various source such as government agencies and NGO were identified and analysed from the method of implementation and previous projects.

2.4.1 Definition of Cultural heritage

Culture defines activities involving music, literature and other Arts and it also define a set of ideas, belief, and ways of behaving of an organization or group (Macmillan English Dictionary, 2006). Heritage defines art, buildings, traditions, and beliefs that a society considers important to its history and culture (Macmillan English Dictionary, 2006). In the context of built environment, the evolution of human civilization involved the basic needs of human which is the place to live and related closely on the way how human living such as to suits the local climate, seeking foods, growing families, and finally to sustain its environment which create the society and their way of life. ICOMOS, (1999) stated cultural heritage are an expression of the ways of living developed by a community and passed on from generation including customs,

practices, places, objects, artistic expression and value. (BURRA charter 2013) define significance values of cultural heritage of place considering factors of aesthetic, historic, scientific, social and spiritual values (fig 2.25 a & b). National Heritage Act section (2) page 100 define cultural heritage consists of tangible elements which includes heritage sites, objects, underwater and intangible elements including expression, sound, music, dances and performance. Pearson and Sullivan (1995) define heritage significance and values to define cultural place as capacity or potential of the place to demonstrate or symbolize contribute to our understanding of the appreciation of the human story.



A b

Figure 2.25 Cultural Heritage Activities Between Two Different Climatic and Culture Situation Which Relate To Human Activities and Spaces Along Street Between Old Buildings: Examples in a Temple Bar, Dublin & b Seniawan Town, Kuching, Sarawak Source: Templebardublin.Ie & Author

The cultural vitality of a place can be defined as the distinctive identities and sense of place that create opportunities for cultural participation, social interactions and business development among the local community (Jackson, Herranz & Kabwasa-Green, 2006; Duxbury, Gillette &Pepper, 2007). Jackson et. al (2006) outlined three domains of cultural vitality, which are the presence of cultural activities, cultural participation and the support systems. Places that offer opportunities for cultural participation are cultural venues, such as museums and theatres, and community places such as the library, community parks, markets and festivals. According to Duxbury et. al (2007), culture contributes to lively cities, and cultural places act as physical assets for cultural engagement. Culture also forms the heritage values of a city. Heritage means the combined creation and products of nature and of man that make up the living environment in time and space (UNESCO, 2005) (fig 2.26-2.27). Meanwhile, the term cultural heritage is often associated with materials that were traced from past cultural activities, which ranged from natural to man-made elements (Canizaro, 2007; Raj Isar, 2004).

Cultural heritage falls into two groups, namely tangible and intangible heritage (Moreno, Santagata & Tabassum, 2005). Intangible cultural heritage, as initially defined by UNESCO, is the collective works originating from a given community based

on tradition. This includes all forms of traditional craftsmanship and popular folk culture. In comparison with the natural heritage and tangible heritage, intangible heritage needs a continuous community involvement in order to sustain its existence.

A cultural heritage is described by UNESCO as one of the followings:

i. **Monuments:** architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science.

ii. **Groups of Buildings:** groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science.

iii. **Sites:** works of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view.



Figure 2.26 Masjid Jame, Kuala Lumpur Function as One of the Main Attractions Representing Historical Value and Cultural Heritage Besides its Strategic Location Along River of Life.



Figure 2.27 Papan Heritage Walk Which Held on Malaysia Day 2019 in Pekan Papan, Perak as an Eye Opener to Public. Its Strategic Location Along Old Shophouses Created an Image Represent its Cultural Value.

2.4.2 Cultural Heritage as a Generate Factor in Urban Conservation.

Cultural heritage in conservation is a tool of economic development that achieves economic growth through attracting visitors from outside as host community, who are motivated wholly or in part by interest in historical, artistic, scientific or lifestyle/ heritage offerings of a community, region, group or institution (Silberberg 1995). According to Rosenfield, (2008), the concepts of cultural and heritage conservation could be achieved from a wide variety of strategies and services including place promotion, cultural districts, legacy tourism and cultural and heritage routes. Cultural heritage is thus a medium for the ever-evolving values of social groups (be they families, communities residing in certain places, ethnic groups, disciplines or professional groups, entire nations) as well as individuals. Social groups are embedded in certain places and times and, as a matter of routine, use things (including material heritage) to interpret their past and their future.

Cultural heritage conservation is a process that consistently recreates its product (cultural heritage), accumulating the marks of passing generations. As such, it must be situated in its larger social contexts as part of the larger cultural sphere and as a basic phenomenon of public discourse, as a social activity constantly reshaped by forces such as globalization, technological developments, the widening influence of market ideology, cultural fusion, and myriad others. (fig 2.28) Cultural heritage is the product or physical remains of the creative activity of humans, including their creative thinking and processes. Creative thinking constitutes the fundamental values of cultural heritage as it represents specific cultural and philosophical backgrounds and our instinctive exploration and understanding of the world. Creative processes can last as long as hundreds or thousands of years, shaped by social, cultural, and other influences. They are the source of more diverse historical and cultural values of heritage sites. Such an understanding of the diversity of cultural heritage has resulted in more values-based conservation philosophies and more diversified conservation practices



Figure 2.28 Archaeological Site In Lembah Bujang, Kedah as a Source of Reference on The Early Civilization Related to Religion, Economy and Cultural Diversity in Malaysia Source: Arkib Negara

The 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage (the World Heritage Convention) explains the value of cultural heritage:

Article 1

"For the purposes of this Convention, the following shall be considered as "cultural heritage:" Monuments: architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art, or science. "

"Groups of buildings: groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art, or science. "

"Sites: works of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view."

In its medium-term plan for 1990-1995, UNESCO says, the cultural heritage may be defined as the entire corpus of material signs either artistic or symbolic handed on by the past to each culture and, therefore, to the whole of humankind. As a constituent part of the affirmation and enrichment of cultural identities, as a legacy belonging to all humankind, the cultural heritage gives each place its recognizable features and is the storehouse of human experience. The preservation and presentation of the cultural heritage are therefore a cornerstone of any cultural policy. The term heritage, a borrowing from legal terminology, may be described as embracing that which can be passed from one generation to the next and following generations, and to which descendants of the original owner have rights deemed worthy of respect. The term also presupposes an intrinsic relationship between those who went before and those who come after, with concomitant notions of responsibility and "holding in trust."

The Nara Document (1977) enlarged the scope of authenticity to provide holistic protection for all types of cultural significance associated with cultural heritage in the context of cultural diversity. The 1977 Operational Guidelines prescribes that all cultural heritage sites should meet the test of authenticity in design, materials, workmanship, and setting while the Nara Document says that the aspects of authenticity include form and design, material and substance, use and function, tradition and technique, location and setting, spirit and feeling, and other internal and external factors. Cultural heritage involves replacement as well as retention. Destruction is not simply an atavistic or aberrant kind of pathological behaviour to be outgrown instead

of it is deeply embedded in human nature and society as part and parcel of economic and creative life

2.4.3 Issues of Cultural Heritage in the Conservation Approach in Malaysia.

The cultural heritage in Malaysia embodies physical development and spiritual value inherited by a community (Khoo Salma,2000). It is a ground where people have taken root and flourished socially and economically. Urban heritage supports economic and socio-cultural diversity, and identity of each community in the country. Each heritage has lasting historic values, variety and contrast in the modern world. It is visible evidence of the continuity between past, present and future that can be appreciated in their own ways (Shamsuddin & Sulaiman, 2002). According to Ghafar (2009) cultural heritage in Malaysia means multi-ethnic, multi-cultural and multi-lingual society in different groups one another in terms of language, oral traditions and cultures inherited from one generation to another. Their rich traditions are preserved and portrayed in religious buildings, sacred rituals and cultural celebrations. For Lowenthal, heritage modifies history for the singular purpose of undergirding group identity rooted in exclusive legends and myths, drawing selectively and imprecisely from distant and generalised history to make for an intimate conflation of past with present (Lowenthal 1996: 139) (fig 2.29 a& b).



a b

Figure 2.29 Traditional Dance in Malaysia: A. Malay And B. Chinese Dance as Symbol of Cultural Diversity in Malaysia Source: Tourist Development Corporation

2.4.4 Effort of Urban Conservation from Local Communities

In Malaysia, heritage cities are facing intensified urban problems as a result of rapid population growth, economic development, and urbanization (Mohamed et al., 2001) There are in addition, support groups such as Penang Heritage Trust and the Heritage of Malaysia Trust, which are the two main pressure groups which have been campaigning on the issue of heritage conservation. So far, the pressure groups have created much awareness on the importance of the heritage to the public. Newsletters, heritage awareness campaigns in schools and workshops on conservation were carried out to encourage participation in the protection of heritage in Malaysia. Some local NGO or local communities which have an awareness on the important to safeguarding their cultural value have worked independently, setting up galleries and museum (fig 2.30-2.32).



Figure 2.30 Gopeng Heritage Gallery, Gopeng Perak. Operation By Local NGO to Promote Tin Mining History in Gopeng.

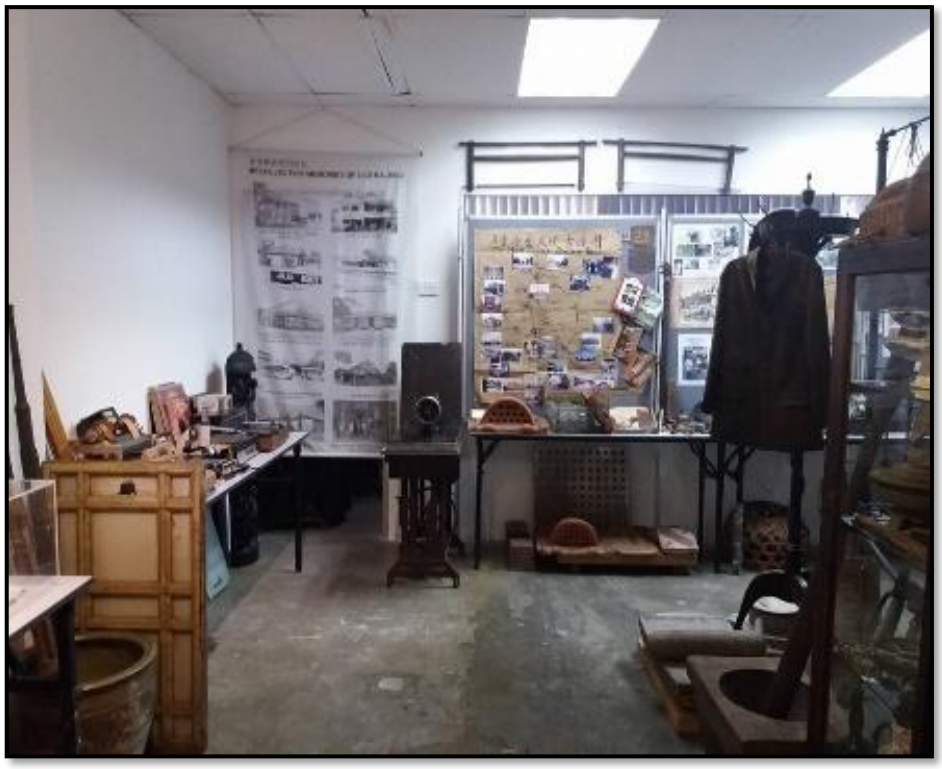


Figure 2.31 Kajang Heritage Gallery, Kajang, Selangor Operated by Local Community and NGO to Provide Knowledge on the History Of Kajang.



Figure 2.32 Papan Heritage Gallery Opened In 2019 in Pekan Papan, Perak and Attended by Representatives from UNESCO and Local Institution to Promote Historical Value of Pekan Papan.

2.5 Concept and Definition of Physical Characteristics and Its Interrelationship with Urban Conservation

The recognition of physical characteristic in the old towns relate closely on the definition of 'Place'. Canter (1977) defined the term place which relate to geographical, architectural and social connotations between actions, conceptions and physical attributes. According to Cullen, (2012), The purpose of towns is for people to gather and enjoy its amenity under the art of relationships which consist of buildings, trees, natures, water, traffic, advertisements and so on, weaving together as such a way that drama is released. According to the Department of Environment and Heritage (DEH, 2004) heritage buildings provide a valuable glimpse of the past and lend character to communities and therefore should be conserved for future generations. The integration of historic conservation with environmental concerns has become an innate feature of an agenda to support sustainability (Stubbs, 2004; Bullen and Love, 2010), a decision to undertake a certain conservation intervention gives priority to a certain meaning or set of values.

2.5.1 Elements of Physical Characteristics in Urban Conservation

The study on the physical character on tangible elements mostly related to the distinctive and unique characteristic on the overall cultural heritage and focusing on the intermediate space of its cultural landscape, urban structure and building elements which connect to the streets which consists of the building's side, rear and frontage space. From detail investigation on the unique architectural features which include aspects such as the character of buildings, image, façade, monumental elements and building usage, the tangible elements of the urban and its overall landscape could embody its identity through the spirit of place.

The historic character of the urban landscape, and the degree to which that character is evident today, guides the research and documentation of the inventory, and contributes to assessment and planning. The tangible forms which show features and overall character of the urban cultural heritage that expresses spirit of place alongside the intangible values that are nested within place. The tangible, character-defining features of the can be documented in archival research, historic period narratives, existing conditions fieldwork, and exploration and selection of preservation interventions. Urban landscape integrity is the degree to which the historical observable today including urban land use which shape the city with observable patterns that define specific zones and clusters. Rediscovering, documenting and assessing the historic character provides a useful, informed basis for consideration of the future. interactions of humanity and nature that formed the cultural heritage value. Space as a species of what Lefebvre calls the production of social space. Conceived as such, empty space "is actually merely a representation of space" (Lefebvre 1991). The representation permits space to be conceived "as being transformed into 'lived experience' by a social 'subject'" (Lefebvre 1991), be it the market, state or civil society actors production of heritage space, the process of forging interrelationships between cultural things by positioning and working them into a physical pattern of relative order and disorder that shapes the practice of social life.

The work of producing space involves the mutually reinforcing representation of space and representational space, the living weight of "imaginary and symbolic elements" in "the history of a people as well as in the history of each individual belonging to that people" (Lefebvre 1991), or in short, the cultural memories and psychical habits of a community with regard to their lived spaces. The principal of

physical characteristics in conservation refers to decisions regarding World Heritage in the Convention concerning the Protection of the World Cultural and Natural Heritage, adopted by the Venice Charter (1964) and Burra Charter (1979) The Convention states that the cultural and natural heritage are increasingly threatened with destruction, aggravated by the changing social and economic conditions. Such deterioration and loss constitute a harmful impoverishment of the heritage of all nations. Due to the scale of required resources, the protection at the national level often remains incomplete. Moreover, "parts of the heritage are of outstanding interest and need to be preserved as part of the world heritage of mankind as a whole" (UNESCO, 1972). Consequently, the Convention states that the question is such parts of the heritage are of outstanding universal value (OUV). In the case of cultural heritage, OUV would refer to history, art or science in the case of "monuments" and "groups of buildings", and to historical, aesthetic, ethnological or anthropological points of view in the case of "sites" (UNESCO, 1972, article 1)

2.5.2 Legibility as a Physical Factor in Urban Conservation

Legibility means the choice of qualities offered from a physical characteristic in term of its place's layout for people to understand and grasp the potential of the physical form and its relationships with the pattern of activities. Before the twentieth century, cities worked well in terms of legibility. Places that looked important, and places of public relevance could easily be identified (Bentley 1985).

There are many researches related to physical characteristic and its relationship with legibility related to urban design and architectural features which derived to the appropriate strategies for conservation and one of it are legibility factor through design approaches based on 5 Lynch elements: (Path, nodes, district, edges, landmarks). "Legibility or clarity" is the essential quality for cities because of its aesthetical value and setting extent to volume, era and complication (Lynch, 1960, p.3). Legibility and Urban Elements: Lynch (1960) defines legibility as "the ease with which its parts can be recognized and can be organized into a coherent pattern" (p.2-3). This refers to the identification of physical elements that indicates the citizens or observers' ability to structure the identified element. Lynch (1960) introduces another terminology that is similar to legibility, which is called "imageability" or "visibility". It emphasizes on physical elements, which provides a vivid and distinctive image to user and the quality

of imageability is influenced by collective significance, purposes, history and the name of the place. Southworth (1985) defines imageable city as composite from different physical objects which also include landmarks, centres, districts and routes. He mentions that these physical objects allow mental maps, which enable observers to orientate and travel within an environment without being disoriented and to be configured.

Therefore, the study assumes that imageability may be achieved if it works with the physical elements. The theory is supported by Southworth (1985), who suggests that the development of an image should begin with the modification of the physical structure of the city. This can be done by creating new or enhancing existing distinctive features, such as constructing new focal points, restructuring paths, strengthening weak edges and intensifying district character by changing land uses and forms (Bentley et al., 1985). According to Lynch (1960), clarity or legibility is the property of the city which can be visually understood and is only linked with other identifiable symbols into an overall picture. This is because the environment is always supported by the presence of other arrangement with the indication of sizes, shape, hues, lighting and senses, like aroma, noise and so on. He adds that an energetic and cohesive physical arrangement contributes to a vivid image, which consists of various icons and recollection. On the other hand, a well-organized environment becomes a reference, influences on the planning of activity and provides comprehensive information Accordingly, this study realizes the importance of legibility in an environment and efforts to investigate the existing distinctive objects that knit the historic district .Bentley et al. (1985) define legibility as “quality which makes a place graspable”. This because they believe that people who are competent to read the layout of the environment are also able to get benefits offered in the area. As an addition, they assume that the preferable quality of legibility should consider both physical layout and patterns of us

2.5.3 Physical Characteristics of Old Towns in Malaysia

Most of the old towns have contributed to the formation of urban form and townscape from its distinctive physical characteristics. Therefore, the image of could be defined by several elements. According to Norzalina, Norhidayah & Noradilla (2015), the character of town could be achieved based on the study of physical

components which comprise the characteristic of urban landscape, urban structures and architectural features. Most of pre-war towns in Malaysia have been opened during colonial period which have been well planned with a variety of building types with different architectural styles influenced by mix culture and of races such as Chinese, Malay and Colonial. According to Heritage of Malaysia Trust (1990), the architectural style of Malaysia has been classified according to the building styles which consists of influences by the Colonial, Chinese, Malay and Indian sources that were a mixture of various architectural styles modified to the Malaysian environment. According to Chan, (1993), the formation of old towns has encapsulated everyday life and place identity. The unique physical features have remarkably shaped earlier part of many cities and pioneering the settlement in Malaysia and how they adapt with the local factor such as climate, population, economy and transportation (fig 2.33 & 2.34).



Figure 2.33 Old Shophouses in Kuala Dungun, Terengganu with the Early Styles of Timber Shophouses which Shows its Cultural Value on the Economy Activities of Early Chinese Population in the Middle East.



Figure 2.34 Old Train Station Building in Alor Setar, Kedah Which Shows the Historical Value of Early Transportation System in Malaysia.

2.6 Urban Structure in Urban Conservation

Urban heritage linked to history through a combination of tangible aspects (i.e. buildings and streetscape) and intangible aspects (culture, religion, and myths). Therefore, in conserving urban heritage, the considerations of the underlying aspects are significant to ensure the survival of the heritage. Individual research on urban heritage conservation versus revitalization was conducted by Rushing, (2009) who shared similar approach with the TL Daniels from American Planning Association (2009) in supporting local community's participation. Urban conservation is relatively new compared to the idea of architectural conservation. The emergence of modern conservation of cultural heritage occurred in the nineteenth century (Jokilehto, 1999). It initially focused on the works of arts, ancient monuments and single buildings associated with architectural and historical value sponsored by the elites and gradually expanded to the other parts of Europe and other regions. It was the Venice Charter in 1964, which could be considered as definite start point. However, this charter is mainly devoted to the protection of isolated architectural works, '*even if, the urban and rural sites are recognized as deserving preservation, they receive scarcely attention in the rest of document*' (Dupagne and Teller, 2004). In fact, '*the definition of human heritage has been evolving since the 1931 Athens Charter, which indicates to cover historic towns and urban areas as well as natural landscape and community-valued natural and*

man-made artifacts' (Salah Ouf, 2001). Unfortunately, the conservation of historic urban setting stated in Athens Charter has been developing slowly.

In Malaysia, the development of urban structures has started since the British colonization which mostly based on economy factor such tin mining and rubber plantation. The history of Malaysia's development to the present day is a complex and fascinating story built upon elements including geographical factors, the existence of and relationships between multiple racial groups mainly Malay, Chinese, Indian and European and their diverse cultures, economic circumstances and social and political structures until 1874, when the arrival of the British in that year introduced a new set of cultural ideas and practices and led to another level of government (Garnaut 2004).

Most of the towns in Malaysia was built during 18th century. For Example, Kuala Lumpur was founded in the late 1850s as a trade centre serving tin mining and agricultural operations at and near Ampang in the upper reaches of the River Klang (Gullick, 2000). Most of the towns was inhabited initially by the indigenous aborigine and Malay population, mostly living in villages along the River but within a few short years of the commencement of tin mining, Chinese labourers had been brought in, enabling continuous tin production. The river has divided the town where Malays and Chinese lived on one side while others were reserved for government buildings and residences. The earliest buildings were built in the vernacular style using local materials such as timber with attap (thatched palm leaf) roofs. After many of these structures succumbed to fire, in the mid-1880s a program commenced to progressively replace timber with brick walled and tiled roof buildings. A town improvement program that included road widening accompanied the rebuilding. Two-storey shop-houses, then common elsewhere in the Straits Settlements, first appeared in Kuala Lumpur about this time. They comprised a shop at ground level with living quarters above and were built at or near to the street boundary. Business expanded noticeably in the capital in the 1890s with the Chinese occupying the central shop-houses and other racial groups establishing themselves in various spots nearby (fig 2.35 a & b). William Maxwell, British Resident of Selangor, established the Kuala Lumpur Sanitary Board in 1889 which is the first municipal body in any Malay state it became the model for similar boards. Members included the heads of state departments, medical, public works and Police and influential representatives of the Malay and Chinese communities. The Sanitary Board's ambit of responsibility was broad and covered health and hygiene where clean water supply, drainage and the removal of waste were key responsibilities

and town maintenance, the construction and naming of streets and traffic regulation. Additionally, the Board oversaw building applications and approvals to build houses. In reality, despite seemingly wide control, “the board itself was little more than a coordinating committee, dependent on state departments, such as the PWD, to implement its decisions” (Gullick, 2000, p. 246).



a b

Figure 2.35 The Evolution of Chinatown, Alor Setar, Kedah in a 18th Century and b 2023Source: Arkib Negara & Author.

2.7 Architectural Features in Building and Town Conservation in Malaysia.

In present, the historical building conservation and maintenance can be considered as a popular method use in Malaysia. Most of the values in heritage could be seen from its aesthetical values and richness in architectural features. In fact, historic building is an important element in town development which can be seen in some cities in the world. It plays an important role in defining the landmark within the urban area as well as generating income. Example of historic buildings in Malaysia according to Ahmad (1997) are mosque, churches, palaces, clock towers, prisons, government offices, institutional and commercials, residential, schools, railway stations, hotels, forts and monuments. The European Charter of the Architectural Heritage, which was passed by the European Council in 1975, says, the architectural heritage is a capital of irreplaceable spiritual, cultural, social and economic value. Each generation places a different interpretation on the past and derives new inspiration from it. capital has been

built up over the centuries; the destruction of any part of it leaves us poorer since nothing new that we create, however fine, will make good the loss.

Study on architectural features in conservation mostly relate on the distinctive elements and unique characteristic on the intermediate space of building elements which connect to the streets which consists of the building's side, rear and frontage space from detail investigation which include aspects such as character, image, façade, monumental elements and building usage. In Malaysia, increasing number of old buildings that have been restored, reused for various purposes and were listed as National Heritage (Lilawati et. al., 2008; Robiah and Ghafar, 2010). There are always different ways of identifying the significant historic and heritage values that lie on a building. For Nelson (1988), every building portrays its own significant character, especially the shape, craftsmanship, materials, decorative details, interior spaces, features, and surrounding environment (fig 2.36 & 2.37). A discussion on the quality of design came later which mentioned that the character of building design depends on the architectural approach that compliments the authenticity and integrity of its historical values .The practice of conservation that includes the work of operation and maintenance is the key to good conservation practice (British Standard Institution, 1998; Worthing et. al., 2002).



Figure 2.36 Shop Houses in Beranang, Selangor which Have Unique Façade and Rich with Architectural Decoration and Functional to Promote its Relationship with Cultural Value.



Figure 2.37 Mansion Building in Lahad, Perak Which Have Unique Decoration and Ornament at Column as Part of Architectural Features Functional to Promote its Relationship of The Owner and its Function to The Cultural Value.

While among all kind of traditional house, the initial carrier which can reflect the trade and cultural exchange especially which relate to tin mining area should be one kind of traditional house with commercial function which are called “shophouse” in Asia. Apparently, shophouses are an archetypical characteristic of many early Southeast-Asian towns, amalgamating Southern Chinese shop layouts with European architectural concepts and building standards. It was through the economic activity brought by these shophouses that old towns prospered as a centre with various cultural activities. Basically, most of the built forms may be classified in the principal varieties; Utilitarian for the early shop houses, with Neo-Classical with the influence of Colonial Architecture and Art Deco with simplified lines and geometrical patterns (Yeang 1992). Much of the pre-war old towns built during this era are still visible as part of Malaysian pre-modern history and as essence of cultural heritage entity and have a treasure trove of unique heritage in term of history, architecture, identity and culture including urban morphology (Siti Norzilaiha, 2014) (fig 2.38).

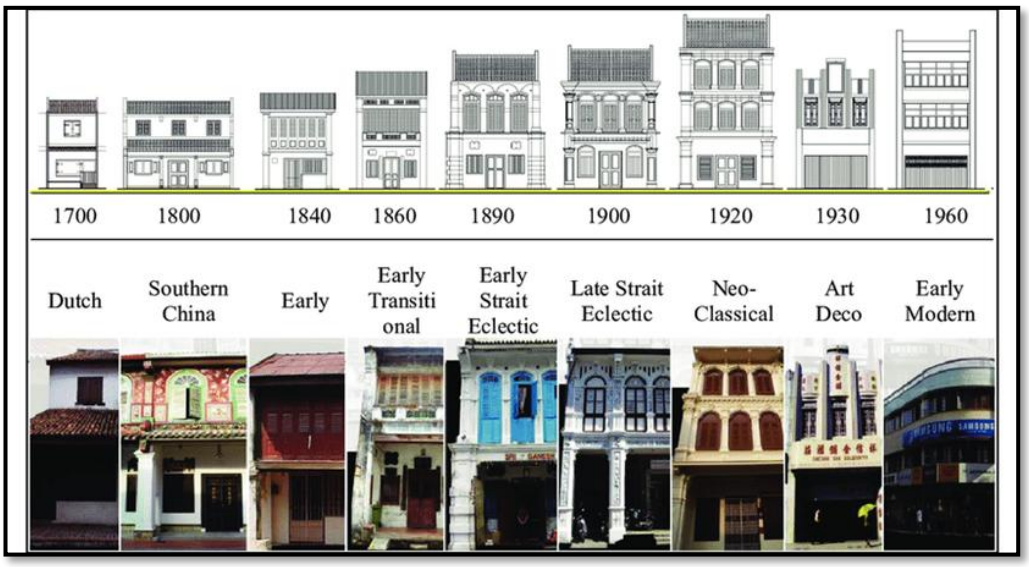


Figure 2.38 The Evolution of Shop Houses Façade in Malaysia Which Exist in Most of The Old Towns in Malaysia Source: Perak Heritage Society

In present days, the town continued to expand, until the swelling urban growth could no longer be contained, prompting a new township to be commissioned (Khoo Nasution and Lubis 2005). As many activities were gradually decentralised to the new town and suburban areas, the old town eventually declined to its present state. Character defining elements (CDE) was interpreted as the key tangible key features that express the heritage values that lie on a building and these include its unique character , sense of place, and time (Jandl 1988) Identifying the character defining elements that make a place significant and the types of significance it conveys is equally important (Azmi at el 2015). Identifying, preserving and maintaining these elements seems necessary as the matter of fact that CDE are taken as the consecutive conservation process and any radical actions that may destroy the elements can be avoided (Jandl 1988, Federal Heritage Building review, 2009). In defining nature and appropriate type of conservation, the locality of the area is the most important factor to be considered. Even though the definition of conservation is to safekeep the heritage and historical essence of the local place, the originality of the area which include the culture and daily local activities must be considered to avoid future overused in term of conservation strategies. In this chapter we will see the related examples in term of conservation strategies in abandon towns and approach which have taking consideration of physical appearance and cultural heritage.

2.8 Guidelines on Heritage Conservation which Relate to Physical Characteristics in Malaysia.

Most of the guidelines applicable for heritage conservation in Malaysia refer to the National Heritage Act 2005 (Act 645) and conservation guidelines at the International level such as the United Nations education, Scientific and Cultural Organisation (UNESCO) and charters under the International Council on Monuments and Sites (ICOMOS) including the Burra Charter, Australia Charter 1999 (Charter for the Conservation of Places of Cultural significance. For the physical characteristics, the Act interpret the physical character or tangible factor as a form of heritage buildings as a groups of separate or connected building which because of their architecture, their homogeneity or their place in the landscape are of outstanding universal value from the point of history, art or science. The site chosen also must have a criteria which includes any area, place, zone, natural heritage, monument or buildings which have archaeological reserve and the value of cultural heritage in the form of tangible or intangible which have the criteria of cultural property, structure or artefact, formation structure, performance, dance, song, music that is pertinent to the historical or contemporary way of life of Malaysians.

2.8.1 Guidelines on Heritage Building Conservation 2017 from Jabatan Warisan Negara.

Under the Guidelines by Jabatan Warisan Negara 2017, the consideration for any buildings to be conserved including the authenticity factors of the structure which have historic significant including the building materials, design and craftmanship which will determine the appropriate conservation approach. The Conservation principle and process also have to be considered which contains the instructions and ethics of conservation including the limitation, disturbance or disruptions that are allowed. For any case studies, the consideration of guidelines will look in detail factors such as the existing conditions of the buildings. By the dilapidation survey, reports and analysis will be produced under the supervision by Jabatan Warisan Negara which include type of protection, identification of preserving elements from the building components, technique of replacing damage elements, protection and maintenance

during the work process and renovation or addition. The selection of area which worth to be conserved will depends on the main aspects of the goals and values of the project which have significance or authenticity in the context of culture, history and architecture of the building. During conservation work, the original form and condition should be restored in order to encompasses the authenticity of the building in vario0us aspects including its architecture, building materials, construction methods and techniques right up to details in elevation, façade, appearance, texture and even colour.

2.8.2 Conservation Planning Guidelines for Heritage Area from PLANMalaysia 2023 (PEWARIS).

On February 2023, PLAN Malaysia had launched Guidelines of Buildings and Heritage focusing on different types of old buildings in Malaysia (PEWARIS) The Conservation Planning Guidelines for heritage areas have been provided as a Uniform Guide to the Ministry, the state, local authorities, building owners, government agencies, non-governmental organizations (NGOs), developers, Individuals and Parties in the interest of controlling, maintaining and managing the area or building that have potential historical value and inheritance but still not get recognition of Heritage Site , National Heritage Site or UNESCO World Heritage Site .

The scope and limitations in the content of these guidelines have been set as follows:

i) The application of these guidelines is only for potential areas and buildings historical and heritage value but has not yet received Site recognition Heritage, National Heritage Sites or UNESCO World Heritage Sites.

ii) Historic and heritage areas and buildings referred to in the line This guide covers only the category of tangible cultural heritage which involves three (3) main components, namely, Monuments, groups buildings and sites as divided according to Act 645

iii) These guidelines will not supersede any legislation, policy, existing rules, circulars or guidelines that have come into force inheritance related.

iv) These guidelines should be read together or cross-referenced with documents provided by the National Heritage Department, Department of Public Works and other related departments or agencies.

In general, heritage-related areas, sites and buildings in Malaysia can divided into six (6) categories as follows:

i) UNESCO World Heritage Site or Building
ii) National Heritage Site or Building
iii) Heritage Site or Building
iv) Historic and heritage sites or buildings in the Development Plan, Local Plan or Special Area Plan.
v) Historic and heritage sites or buildings in the Department's inventory list National Heritage (JWN)
vi) Sites or buildings that have the potential to have historical and heritage value but Not in the list I to V above.

Each of these areas, sites and buildings is created or gazetted according to current legislation and regulations under the agencies involved. However, there are also known areas, sites and buildings are also of historical or heritage value only guided by impressions or stories told in the local community from hereditary and local evidence that has not been verified through certain specific studies.

These Guidelines apply to three (3) main components namely monuments, groups Buildings and sites that have been identified:

i) In the Development Plan, Local Plan and Special Area Plan.
ii) In the inventory list of the National Heritage Department (JWN)
iii) Potential historical and heritage value.

Three (3) categories which don't have specific guidelines that can be to assist stakeholders, especially local authorities to conserve and manage areas, sites and buildings with potential heritage and historical interest so that it continues to remain a national heritage asset and is not in the list of heritage. Aspects of site planning areas, sites and buildings with heritage and historical value should be identified and marked at an early stage to be protected and preserved. These guidelines have identified six (6) aspects in site planning as follows

i) Cultural mapping
ii) Landscape of heritage area
ii) Natural features and public spaces
iv) Management of communication and traffic systems

v) Use of smart apps.

2.8.3 Architectural and Building Design Aspects

This guideline describes the technical requirements for the conservation of heritage buildings and structures covering architectural aspects, building materials, building structures, colours, appearances, new additional structures and the best methods or methodologies in line with relevant historical and heritage characteristics. Referring to the Heritage Bg Conservation Guidelines (GPPBW), National Heritage Department (JWN) 2017.

2.8.4 Building Typology

Building typology refers to the study carried out on the type, class or style of a building. Each state has its own building typology according to the administration in that state. The typology of shophouse buildings was chosen as an example because in present the issues that arise regarding heritage buildings revolve around shophouses.

2.8.5 Building Conservation Requirements

In general, life expectancy factors, human acts (vandalism, incorrect repair methods etc.), weather influences as well as environmental effects such as botanical, biological, chemical and insect pests are the causes of damage to existing heritage buildings. Before any work begins, a preliminary investigation must be carried out to identify the condition and extent of the damage that occurred. Conservation works carried out should also be documented in an orderly manner before, during and after the work is carried out.

2.8.6 Requirements for Internal Conservation of Buildings

This section explains the technical guidelines for the conservation of internal buildings which include building components such as walls, ceilings, floors, decorative variety, paint, stairs, mechanical and electrical.

i) External Conservation Requirements

This section describes the technical guide for the exterior conservation of buildings which includes building components such as roof, walls, floors, doors and windows, rainwater downpipes and gutters, paint, mechanical and electrical.

ii) New constructions such as the addition of buildings within the same site which does not damage the view of the value of heritage importance and are dominant from the originality of the building and the original supporting components.

iii) Taking into account the preservation of the architectural character of the heritage building, the integrity of the site and the setting of the historic space.

iv) The construction of the new building and supporting components does not affect the original structure, design and architecture of the heritage building.

v) The height and distance of the building and the new supporting components of the heritage building must be in harmony with the original design either in terms of image, material or context as well as the layout of the heritage site.

vi) The design of the proposed building and the new support components must take into account the elements, scale and character of the building and site without diluting the prominence (outstanding) existing heritage buildings and can distinguish between the original and new development.

vii) Any development for new construction must take into account the minimal traffic impact on heritage buildings.

viii) The use of modern building materials is permitted if it can provide identifiable advantages of their use and having strong scientific evidence of their use supported by an accredited body. New building materials must be compatible with expression, original appearance, texture and form.

ix) Modifications and additions to existing buildings and supporting components are accepted if they meet the requirements of the new function, respecting the original condition of the fabric and environment and not contributing to further deterioration and combination of contemporary elements while respecting the identity of the original design.

x) Aesthetic integrity of heritage related to colour, original layout, composition balanced with the environment, design, scale, texture and environment

2.9 Examples of Conservation Strategies with Reference to Physical Characteristics and Cultural Heritage.

In this part examples of conservation strategies which related will be reviewed to look at on how the abandon towns being conserved. Consideration of the examples have been considered considering all type of abandon towns in various factors such as the existing condition of town or building which was abandon and the various action taken to conserve it by considering the physical factor and cultural heritage.

2.9.1 Torri Superiore Ecovillage- Urban Conservation of abandon Towns in South Italy

In Italy the number of abandoned small villages is progressively increasing with over 5.000 on the whole Italian territory and a large concentration found in the impoverished and seismically active portions of the Southern regions along the Central-Southern Apennines. Di Figlia has identified 135 towns abandoned during the 20 and 21st centuries, while the Department of Agriculture, Food and Environment, at University Agriculture, Food and Environment, at University of Catania confirms that, in Sicily alone, there are over 80 abandoned agricultural villages. Statistical research conducted in 2008 identified 1.650 municipalities at risk of becoming ghost towns by 2016, unable to reach the minimum threshold of 'survival' in the demographic, social, economic and services categories.

According to the latest estimates3, there are 6,000 villages, among which the towns, pastures, and farmsteads with fewer than 5,000 inhabitants (70% of the Italian municipalities, where only 17.2% of the population lives are included. Out of these 6,000 villages, nearly half are in danger of extinction because some are completely, and others almost completely, uninhabited. Such situation spreads all over the country, from North to South and from East to West, but becomes particularly rampant in some central and southern regions: the inner areas of Tuscany and Marche, Basilicata, the entire Southern Apennines arc, from Abruzzo to Calabria and through Molise. This example has been taken as similarity with Pekan Papan where the existing condition where most of the building have been left abandon and uninhabited.

In the early eighties a couple of visitors from Turin “discovered” Torri Superiore, a beautiful, ruined hamlet, with its last remaining inhabitant. Back to their hometown, they contacted friends and acquaintances and started spreading the idea of rehabilitating the small village and create a community of residents. In 1989 the Associazione Culturale Torri Superiore was founded with the social purpose of recovering the whole building and to revitalize it through the settlement of a new community of residents and the creation of an eco-village with a cultural centre open to the public (Torri-Superiore 2009) (fig 2.39).

The origin of the medieval settlement Torri Superiore is uncertain, though it may date from the late 13th century, a time of great social and religious unrest in the region. This would explain the village’s compact architecture remarkable for its width and height, which would have offered good protection to its residents. The village is situated at the foothills of the Ligurian Alps, a few kilometres from both the Mediterranean Sea and the French/Italian border, close to the coastal town of Ventimiglia. Torri Superiore presents a unique urban layout with several five-story buildings, 162 rooms spread in an exceptionally intricate nature. Narrow passageways, stairways, terraces and alleys create a complex labyrinth, a web of rooms and corridors interwoven and spread with surprising connections. (fig 2.40)

The buildings at Torri Superiore were added to over the centuries, with the last parts of the hamlet probably being built around the end of the 18th century. It was at this point that population levels peaked before the village gradually become abandoned as people began to leave Liguria due to lack of employment. In the late 80’s a group of academics, professionals and enthusiasts initiated the process of negotiating the purchase of the abandoned village and setting up a cultural association and sustainable community. Early into the project the decision was made to renew the building following ecological principles and materials where possible while respecting the original character. Torri Superiore was retrofitted over a period of 25 years in a comprehensive process of collective self-build utilising natural materials and appropriate technologies, compatibly with the limitations imposed by the local building codes and by the historical structure of the village. (ref fig 2.41)

The settlement was given a new lease of life as an ecovillage, visitor attraction and a cultural centre with guest facilities and apartments for residents with a combined central solar, wood and gas heating system that functions at low temperature under the floor and on the walls. (fig 2.42) Permaculture gardens and fruit orchards and

organically farmed olive groves. With a solid social architecture built over time, a question remains whether community-led approaches such as Torri Superiore could support the rehabilitation of abandoned villages in Southern Italy creating a swift response to the increasing demand of housing amid record waves of refugees (fig 2.43). The strategies of successful conservation program of Torri Superiore which have been created as the concept of ecovillage to attract people mostly through tourism industry with the involvement of local community could be a good example for conservation program for Pekan Papan.



Figure 2.39 The Aerial View of Torri Superior Complex, Italy Shows the Layout of The Medieval Settlements Which Have Been Preserved .Source: Alice Gulia Dalborgo, 2017.

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Figure 2.40 Layout of Torri Superiore, Italy with Several Five-Story Buildings, 162 Rooms Spread in an Exceptionally Intricate Nature, Narrow Passageways, Stairways, Terraces And Alleys. Source: Alice Gulia Dalborgo 2017



Figure 2.41 Natural Materials and Appropriate Technologies, Compatibly with the Limitations Imposed by the Local Building Codes and by The Historical Structure of the Village. Source: Alice Gulia Dalborgo, 2017.

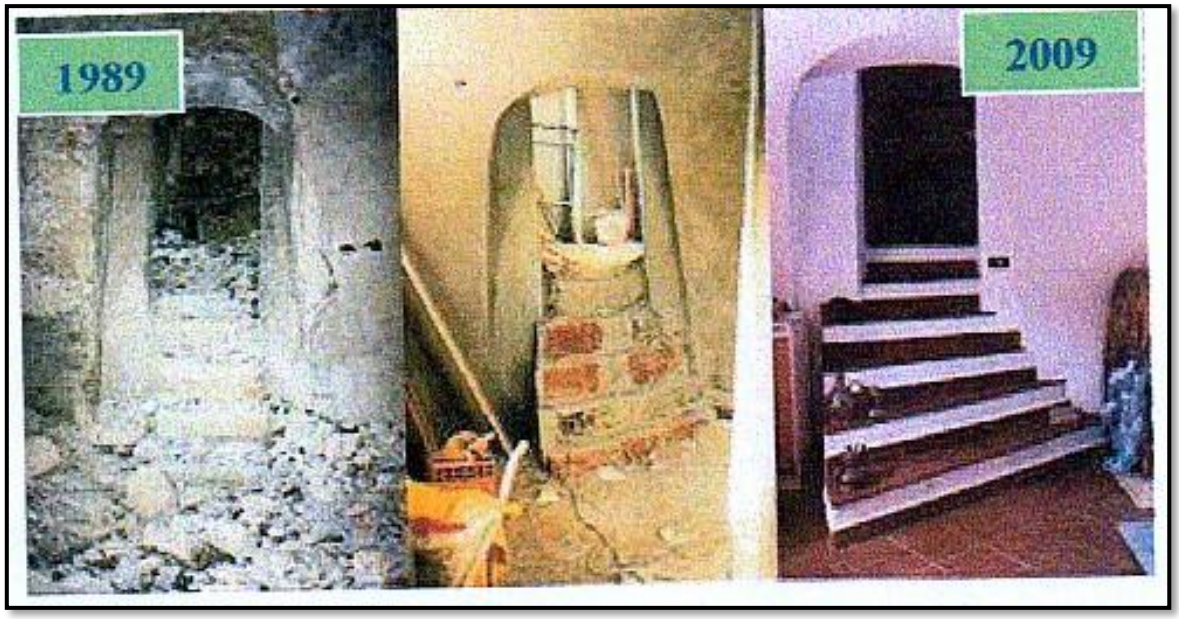


Figure 2.42 The Renovation Process of Cultural Centre with Guest Facilities and Apartments for Residents with a Combined Central Solar, Wood that Functions at Low Temperature Under the Floor and on the Walls.
Source: Alice Gulia Dalborgo, 2017.



Figure 2.43 Torre Superiore, Social Architecture Built Over Time, and Which Could Support the Rehabilitation of Abandoned Villages in Southern Italy and Creating a Swift Response to the Increasing Demand Of Housing.
Source: Alice Gulia Dalborgo, 2017.

2.9.2 Urban Conservation Strategies of Abandon Buildings in Clarke Quay, Singapore

In Singapore, conservation areas are designated according to their architectural and townscape qualities. The shophouses and townhouses within the conservation areas are often faced with the problem of disuse due to functional obsolescence. In the selection of new uses and activities to regenerate the area, very often emphasis is placed on economic viability and appropriateness for the new context. There is generally less emphasis on the social and cultural character the approach is to ensure that every protected building remains in use and that most buildings, with the exception of religious buildings, remain economically sustainable. The former is concerned with the physical and aesthetic aspects made up of the urban patterns, spatial relationship, building appearance and floor scape etc, while the latter focuses on the occupants, uses, activities and traditions of the area. Both are important to the historic character of the place (fig 2.44). Monuments and sites in their setting-Conserving cultural heritage in changing townscapes and landscapes have been protected, adapting the heritage buildings to new uses has been a common practice. Alongside adaptive re-use, the modification of the heritage buildings has been allowed to accommodate new uses. In fact, even for buildings that retain their original uses, modifications such as intensification of use and modernisation often take place. Singapore's government stresses the need to ensure these heritage buildings are not 'frozen' in time and continue to stay relevant.

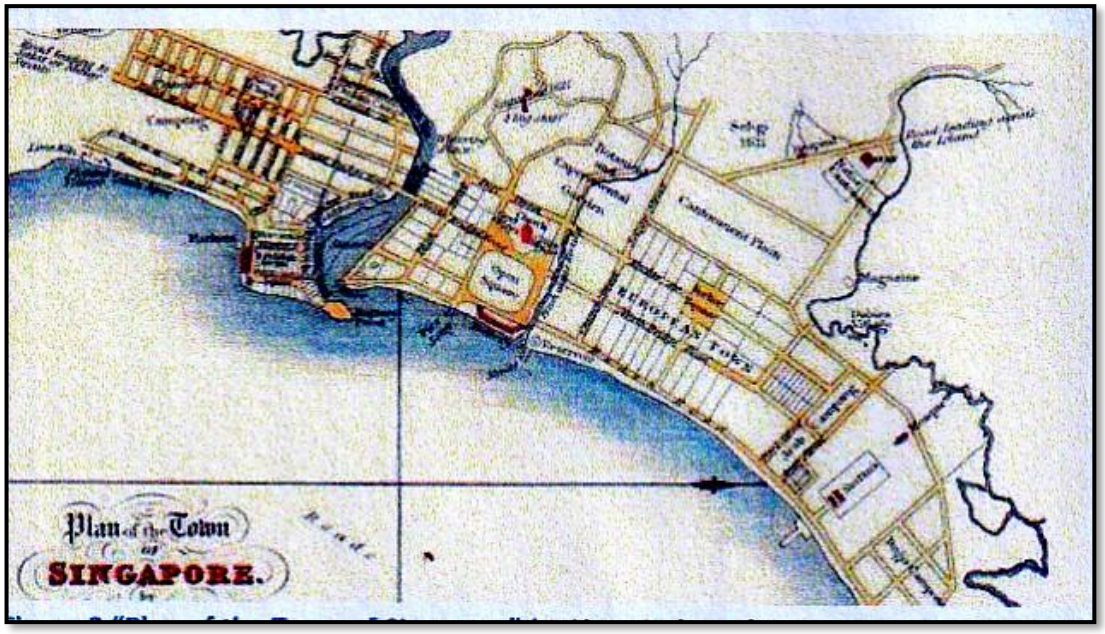


Figure 2.44 The Origin Plan of Clarke Quay, Singapore which Located Along Strait Settlements. Source: Gratchen, Pastel Potraits: Singapore Architectural Heritage.

The Clarke Quay and Boat Quay areas are two of many areas in Singapore which are pilot projects for the implementation of the conservation concept from the Singapore Government. The origin of the word Clarke Quay itself is taken from the second Governor of Singapore, namely Sir Andrew Clarke and the Governor of the Straits Settlements, who ruled from 1873-1875 (fig 2.45). They had a very important role in making Singapore a prime position as a port for Perak, Selangor and Sungai Ujong. Clarke Quay and Boat Quay are the names of a road along the pier. The area has been turned into an area for pedestrians or pedestrians. The street name Clarke Street, which is next to Clarke Quay, was inaugurated in 1896[11].

Before the conservation program in this area, the two streets were known as Street East and West Street in the north of Kampong Malaka. Like Clarke Quay, Clarke Street is also used for pedestrians in restaurants and nightlife spots. The Clarke Quay area is located near the mouth of the Singapore River, which Tye Tan Place and Canning Road bound. Located opposite the mouth of the Singapore River, Clarke Quay is said to be the oldest pier in Singapore because the Singapore River or the Singapore River has been a trading centre since modern Singapore was founded in 1819. Apart from Clarke Quay, the conservation area also includes Boat Quay, one area with Clarke Quay. During the colonial era, Boat Quay was the centre of the commercial district

where lighter barges would transport goods upstream to the warehouses at Clarke Quay. (fig 2.46) At the height of its prosperity, dozens of cruise ships jostled to dock next to Clarke Quay. This phenomenon continued into the second half of the twentieth century; This makes the Singapore River very polluted. With the emergence of this phenomenon, the Government decided to relocate the loading and unloading place to the Pasir Panjang area. The Government then cleaned up the Singapore River and its environment in 1977-1987 (fig 2.47).

In the case of Pekan Papan, the consideration its of conservation could be designated through its townscape and architectural quality. The consideration through its authenticity is the most important to be considered which will derived to appropriate conservation action to be taken. From the example from Clarke Quay, heritage buildings in Pekan Papan must allow to accommodate new uses but to retain their original uses. Modifications such as intensification of use and modernisation could take place as long the originality and authenticity of the buildings to be maintained to ensure the heritage buildings continue to stay relevant.



Figure 2.45 The Conservation Area of Clarke Quay Including Boat Quay, One Area with Clarke Quay. During the Colonial Era, Boat Quay was the Centre of the Commercial District Where Lighter Barges Would Transport Goods Upstream to the Warehouses at Clarke Quay

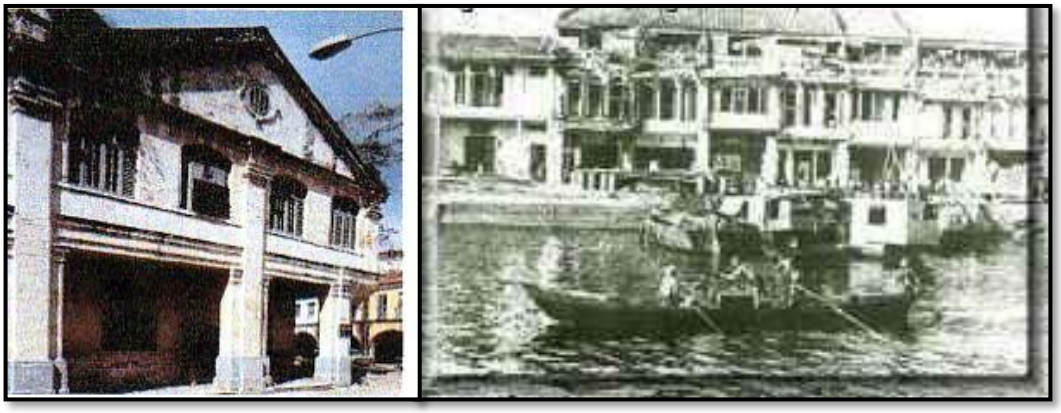


Figure 2.46 Dozen of Cruise Ships Jostled to Dock Next to Clarke Quay Which Makes the Singapore River Polluted. Source: (Source: URA. Singapore River: Development Guide Plan: Draft: August 1992, 8)

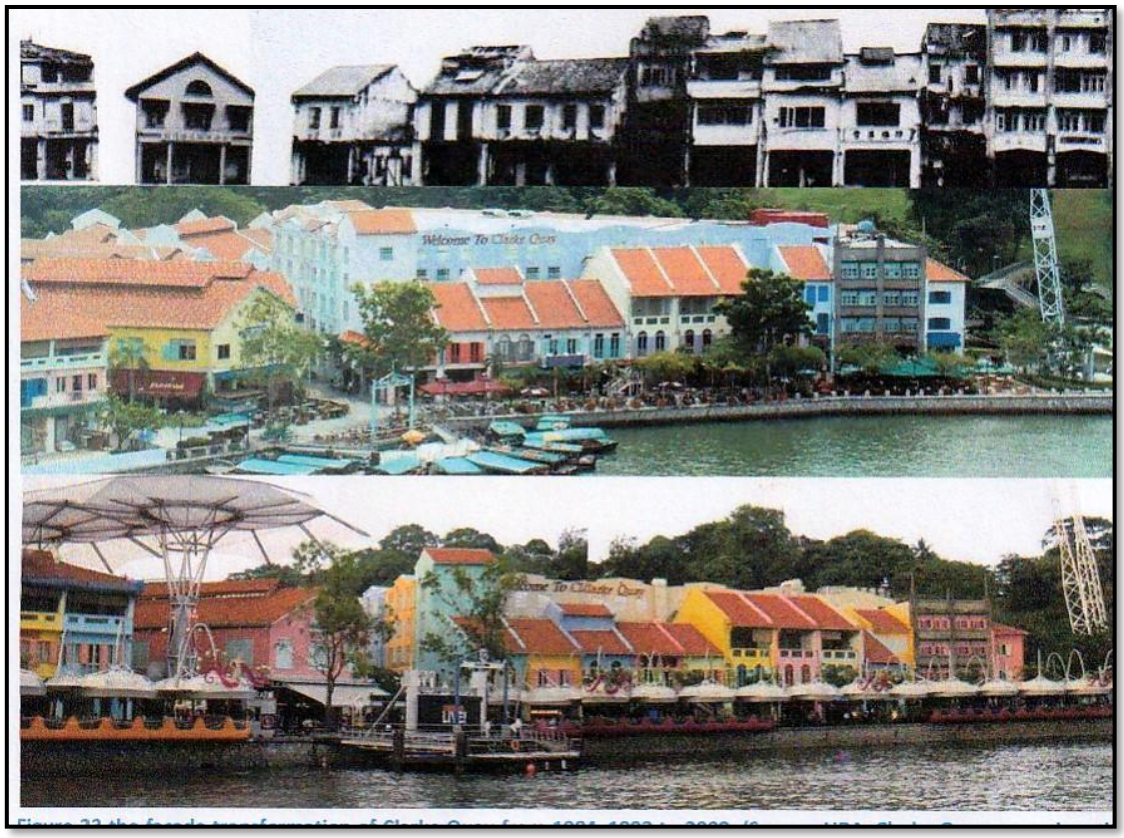


Figure 2.47 The Relocation of the Loading and Unloading Place to the Pasir Panjang Area and Then Cleaned Up the Singapore River and its Environment and Transform Clark Quay into Tourist Attraction Area. Source: URA. Clarke Quay; Dixon, John Morris, Ed. Urban Spaces; Photo By Wang Jin Hao

2.9.3 Urban Conservation Strategies of the Abandon Shop Houses Project at, Heeren Street, Malacca

Abandon shop houses at Jalan Tun Tan Cheng Lock retains the character of a residential area with a narrow road and a dedicated private veranda (fig 2.48). The façade of the building and the design of the building exhibit the characteristics of a residential building where there is a courtyard and a water well in it. On most of the building facades there is decoration which is a way of personalisation". The successful implementation of shophouses in Malacca was to prove how shophouses can be preserved in their original styles and can be given new functions. The model project is in response to the rapid loss of this building type in the conservation zone of Melaka. It aims to demonstrate how early shophouses can be restored to high levels of authenticity yet also be adapted successfully to new uses. It is a direct response to Elizabeth Vines' [UNESCO] report which specifically recommends that a model project be initiated. It aims to be a positive contribution to Melaka's bid for World Heritage Listing (Badan Warisan, 2002).

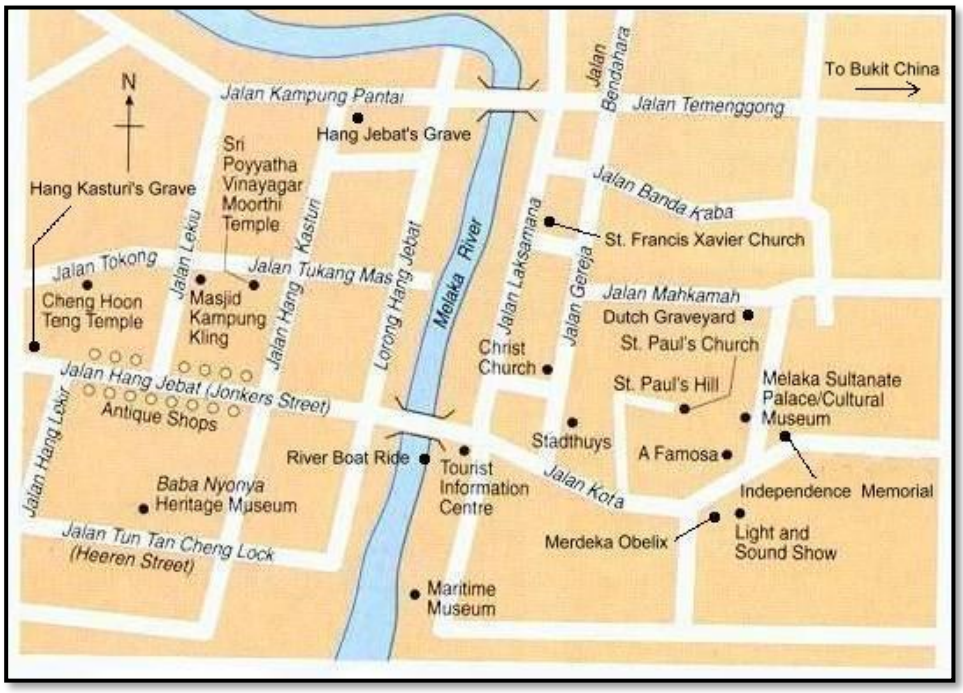


Figure 2.48 Map Jalan Tun Tan Cheng Lock, Banda Hilir, Melaka Retains the Character of a Residential Area Source: Tourism Melaka

This Project was completed in 2002 but officially opened in 2005, showing a perfect example for the usage of conventional materials and it set an example for the future projects. Every element that contributes to the spatial configuration of a town such as size, shape, construction design, materials, colour and ornaments of buildings conveys to the significant identity and image of a town; therefore, each element is crucial to be preserved and protected (Idid, 1995).

The preservation of shophouses at Heeren Street was not only a milestone for Malaysia's cultural heritage preservation, it was also a successful application of physical conservation which was concerned with the sense of place at the same time. This shop house was a hopeful beginning for an effective preservation process with the use of methods and approaches unique to this place. The category of this building has been categorized into an early shophouse which have been built between the mid-1800s and early 1900s. The height of the building is lower and has one or 2 windows on the upper floor with single window at ground floor with long leaves that open up and down. The main structure of the inner wall was maintained with additional walls to adapt to the building's activities. The Early Shophouse were built between the mid-1800s and early 1900s. The ground floor level of house has one or 2 windows and on the upper floor there is a single window with long leaves that open up and down can be separated into side doors (fig 2.49 a& b).

The similarity of this project to Pekan Papan could be seen on the treatment of the building façade which maintain its authenticity and create a sense of place as a conservation strategy. The building components have been considered such as windows have been carefully preserved and create an identity of the place. For Pekan preservation process should be carefully monitored in order to ensure the spatial configuration of a town such as size, shape, construction design, materials, colour and ornaments of buildings to convey to the significant identity and image of a town.



a b

Figure 2.49 Example of Building Façade at Heeren Street, Malacca Before a and After Conservation b. This Shop House Was a Beginning for an Effective Preservation Process with the Use of Methods and Approaches Unique to this Place. Source: Tourism Melaka

2.9.4 Urban Conservation Strategies at Concubine Lane (Jalan Panglima), Ipoh Perak

The study focusing on Ipoh as one of the old towns in Malaysia and how it maintains its historical significance that represents its identity as an old town and how it remains intact with heritage elements built within it. Refer to Ipoh Local Plan 2020 and the National Heritage Act 14 buildings and monuments out of 1,540 in total were acknowledge as significant heritage buildings (Md Lazim &Said 2020). Ipoh is one of the early towns opened by the British, with a unique character in terms of urban form through building architectural styles and urban morphology with colonial characteristics (Harun & Jalil, 2014). The elements within a town have been studied as a factor which could bring people together in order to create a collective of enjoyment. Aesthetic pleasure is the main consideration which could attracts people to experience the diversity of visual and aesthetic elements through time. Consequently, a town has a specific visual impact on the people who live in it or on those who visited the town (Md Lazim & Said 2020).

In this context, the visual effect is represented by the changes in the landscape and appearance due to physical development (James Hutton Institute, 2014). The physical forms of a town and its related activities have contributed to urban quality known as an urban character as a combination of available elements creates a lively and vibrant urban setting that typifies a living town for the recognition of a town's existence. However, the urbanisation pattern nowadays has affected the former identity or character of an old town, which have endangered the cultural heritage value of the nation. The first objective of this study is to explore the urban morphology of the Ipoh old town from the pre-colonisation period until the present while the second objective is to identify and compare the changes of the urban character based on its physical features seen in the town. The concept of townscape has been defined as a part of a city that has significance in setting the character of a city in order to create clear images, identity, and sense of place that can strongly express certain visual qualities and enhance the sense of belonging which is similar to Pekan Papan. The study has revealed that numbers of historical buildings play as the landmark and a typical historical urban element that shaped the character of Ipoh Old Town (fig 2.50).

In many cases most of the original form of the building has survived but the changes in uses of the physical conditions and original character have make the town adversely affected and losing some at least of its qualities (Rohayah et al., 2013). Despite the strength and architectural qualities possessed by these buildings, the buildings and their surrounding area are often subjected to threat and changes which resulted to placeless geography and possibly lead to the death of the main strength of the town as a historic place (fig 2.60). In reference to Ipoh old Town and Pekan Papan, Concubine Lane formerly known as Lorong Panglima, was an empty small lane of local houses is one of the streets that have face conservation work through the consideration of its physical characteristic and cultural activities which the main elements that create the character of this place are streets, squares, buildings, and activities(Fig 2.51 & 2.52). Users tend to walk around and involve in street activities, such as taking pictures, hanging out, retailing, and enjoying visual attractions featured by the old buildings (fig 2.53). In present the lane is occupied with retail activities and visitors (fig 2.54). From the questionnaire survey done by the researcher, result has found that most of the respondents are attracted to the physical features in the area, attractions, social activity at the area, and for self-enjoyment (Md Lazim & Said 2020) (fig 2.55). This shows a

current scenario that is influenced by surrounding elements has strengthen the ambience of the historic old town, which can be the pull factor to attract visitors.

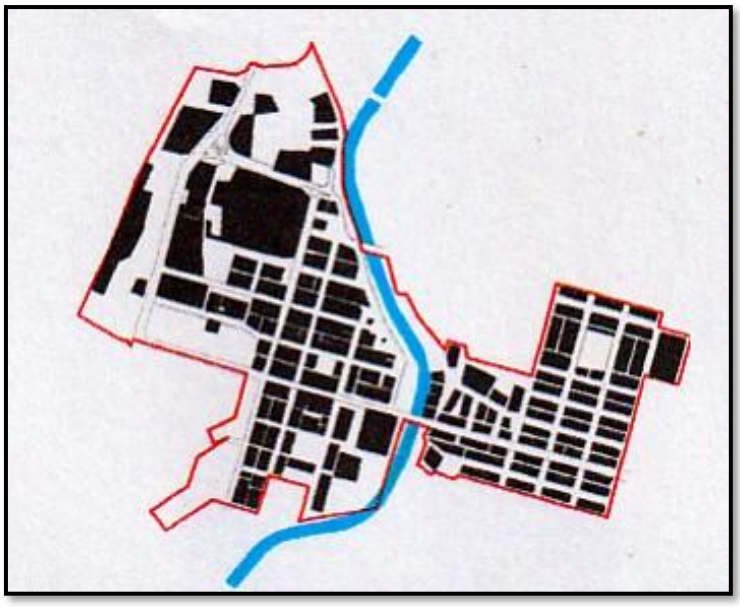


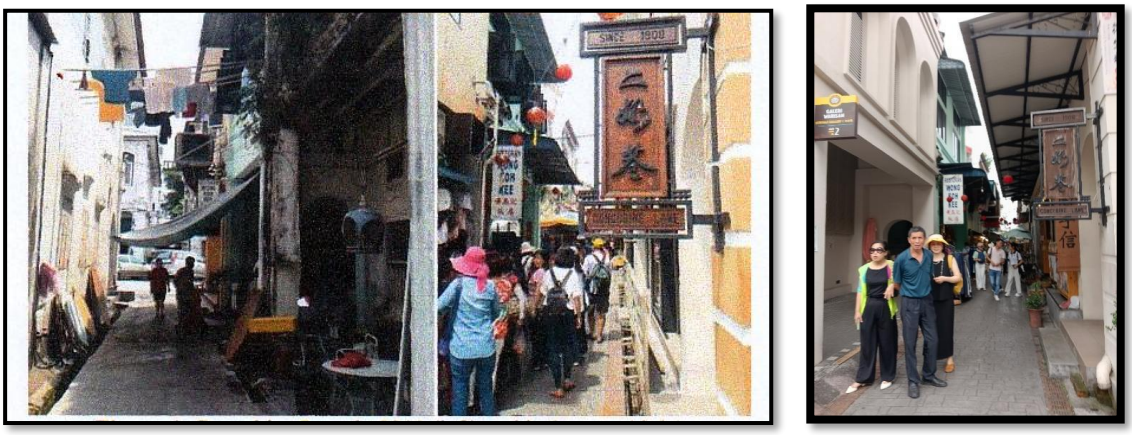
Figure 2.50 The Development of Urban Pattern in Ipoh from 1990 Until Present Shows the Mix Development of Old Town
Source: Md Lazim & Said 2020



Figure 2.51 Old Shophouses at Jalan Market Ipoh, Perak which Rich with Street Eclectic Architectural Style but Left in Dilapidated Condition.
Source: Md Lazim & Said 2020



Figure 2.52 ` Conservation of Shophouses at Jalan Market, Ipoh, Perak Which Mainly Focusing on Building Façade But Have Ignored Other Street Eclectic Elements Such as Detail and Five-Foot Way.



2010 2020 2025

Figure 2.53 Concubine Lane (Jalan Panglima), Ipoh, Perak in 2010, 2020 and 2025. Source: Time Of Malaya (2010), Md Lazim & Said (2020) Author (2025)



2020 2025

Figure 2.54 Five footway at old shophouses at Concubine Lane Jalan Panglima, Ipoh, Perak in 2020 and 2025. The placemaking to beautify the lane have change the authenticity of the street image



2018 2025

Figure 2.55 Adaptive Reuse of the Street in Between Abandon Shophouses at Concubine Lane, Jalan Panglima, Ipoh, Perak. Before and After. Source: Author (2018), (2025)

2.9.5 Conservation Strategies of former tin mining town in Taiping Perak

In present, Taiping remain as one of the old tin mining towns which still exist and well preserved under the guidelines from Taiping Municipal Council (TMC). Among the general guidelines related to urban conservation stated in Taiping Municipal Council Local Plan (2021-2025) Was:

i. Forming the historical network of Taiping town, identifying the importance and conserving a historical network and not just maintaining a monument only.
ii. Conduct detailed research and prepare a retention action plan and the conservation and development of Taiping Historical Heritage (ref fig 2.56).
iii. List buildings or monuments and gazette them (fig 2.57).
iv. Programmed to repair, conserve and retain materials/ History building have been conducted in an integrated manner with treatment programs and landscape management.

Taiping Municipal Council Local Plan (2021-2025) has divided the development of historical heritage into three components:

Historical town

i. Administrative components (such as museums and resident houses) (fig 2.58).
ii. Recreation (golf club and lake park)
iii. Bukit Larut resort area
iv. Education (such as King Edward School and St George's School)
v. Buildings security institutions (such as Taiping prison)
vi. Business (such as the mass market and rest houses)
vii. Urban design (such as the 'grid-iron' road system and big hours as a landmark)
viii. Malay religious institution (Masjid) and private buildings (such as shop houses)

The choice of building for conservation action was based on its historically significant as follows:

a) History of Economic Development- The first tin mine in Klian Pauh (1840-an)
b) Communications and Transportation Systems: Like the Telegraph Official (1880), the first way from Kota to Klian Pauh, railway runway (1840), Port 'Port Weld' (1877) and Tekah Airfield (1930)
c) Perak State Historical Complex
d) Minister's Administration System, Balai Penghulu, Tengku Menteri Mosque (1870) and Kota Ngah Ibrahim (1854)

Taiping Municipal Council has implemented systematic planning in the success of the Action Plan program Historical Heritage Development of Taiping Town. The study areas involved are the area of Taiping Old Town covering an area of 129.5 hectares. Taiping Historical Heritage strategy adheres to and have taken into account philosophy, principles and concepts of conservation that recognized by the International Council on Monuments and Sites (ICOMOS) worldwide. Study implemented in 1995 by Taiping Municipal Council have identified conservation areas and listing and classifying buildings has the historical value of saving the building from being exposed to the risk of neglected consequences as well as from the demolition and destruction of which arbitrary, as well as adhering to the main purpose of the principle of conservation. In Taiping Strategic Plan 2021-2025, Taiping Council Township plays a role in enforcing planning guidelines designated (in the context of urban conservation) The use of paint and color needs to be in line with the color context on the wall permissible façade and the application of colors on elements can be different from façade walls but the use of light colors is not encouraged (fig 2.59- 2.62).

i. In the regulation of Plot Ratio, Development Density Escort and buildings in the maintenance area, all construction controlled according to the established conditions and methods of urban preservation. The height and area of the floor space are subject to building conditions traditional is available. Characteristics of the height of origin are preserved and modified on Internal patterns to achieve greater heights are prohibited.
ii. Terms of Infill Development proposals need to be matched with adjacent buildings and the entire building in an area. Scale considerations involve aspects such as lot width, height level, path level, sidewalks, windows,

doors, walls and so on. Permissible height is according to adjacent buildings or based on the ratio of plots and a height that corresponds to the overall surrounding building.

iii. The use of Malay as the main language that needs to be exhibited on every billboard. The use of other languages needs to be smaller the size and main language of the displayed language should be concise.

iv. Repair work must meet the design, original building materials, not affect the original character of the building and the surrounding area and have corresponded to the character of the building and the surrounding area.

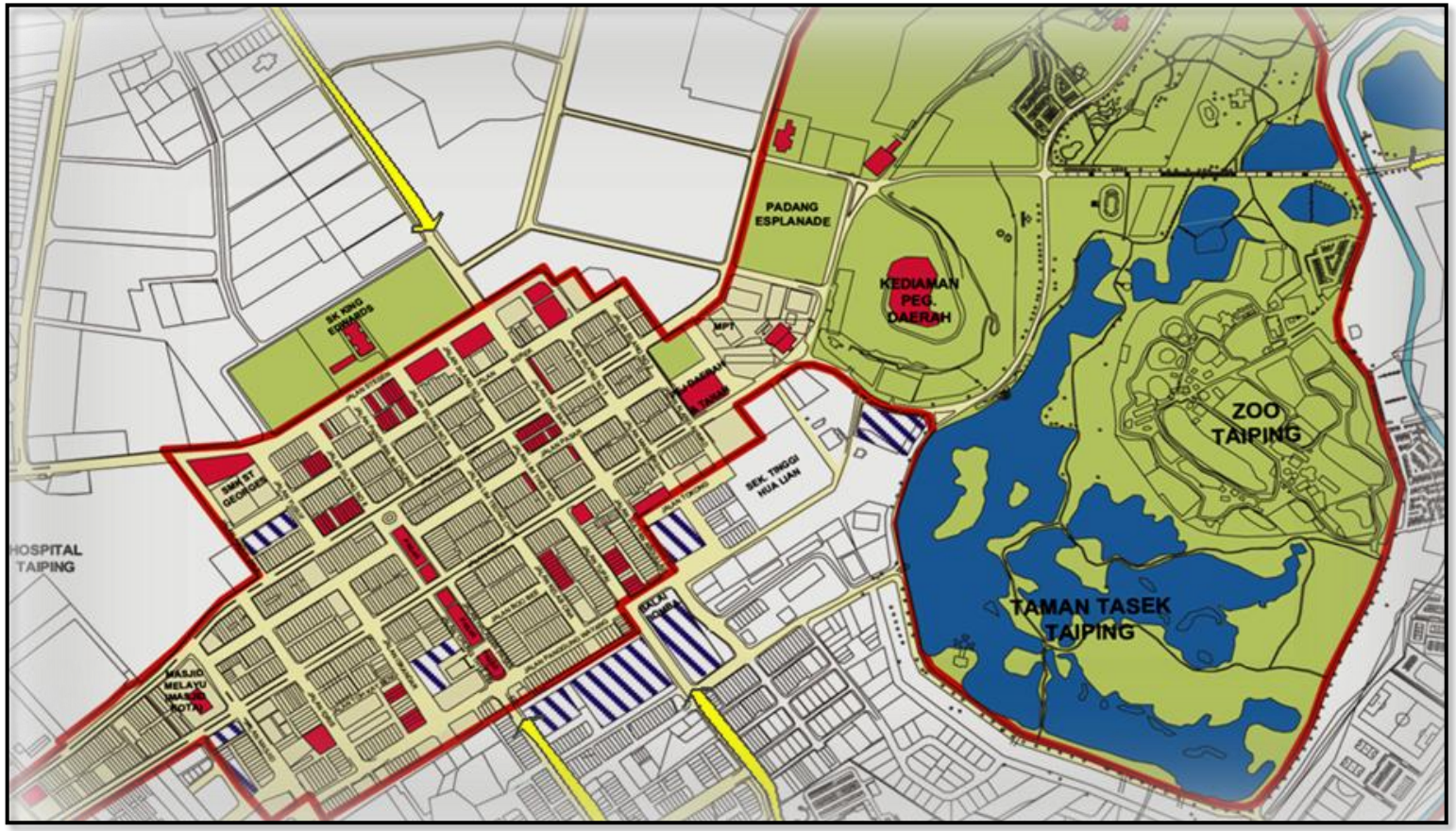


Figure 2.56 Retention Action Plan and the Conservation and Development of Taiping Historical Heritage
Source: Majlis Perbandaran Taiping



Figure 2.57 List of Buildings or Monuments which Have Been Gazetted in Taiping, Perak
Source: Majlis Perbandaran Taiping

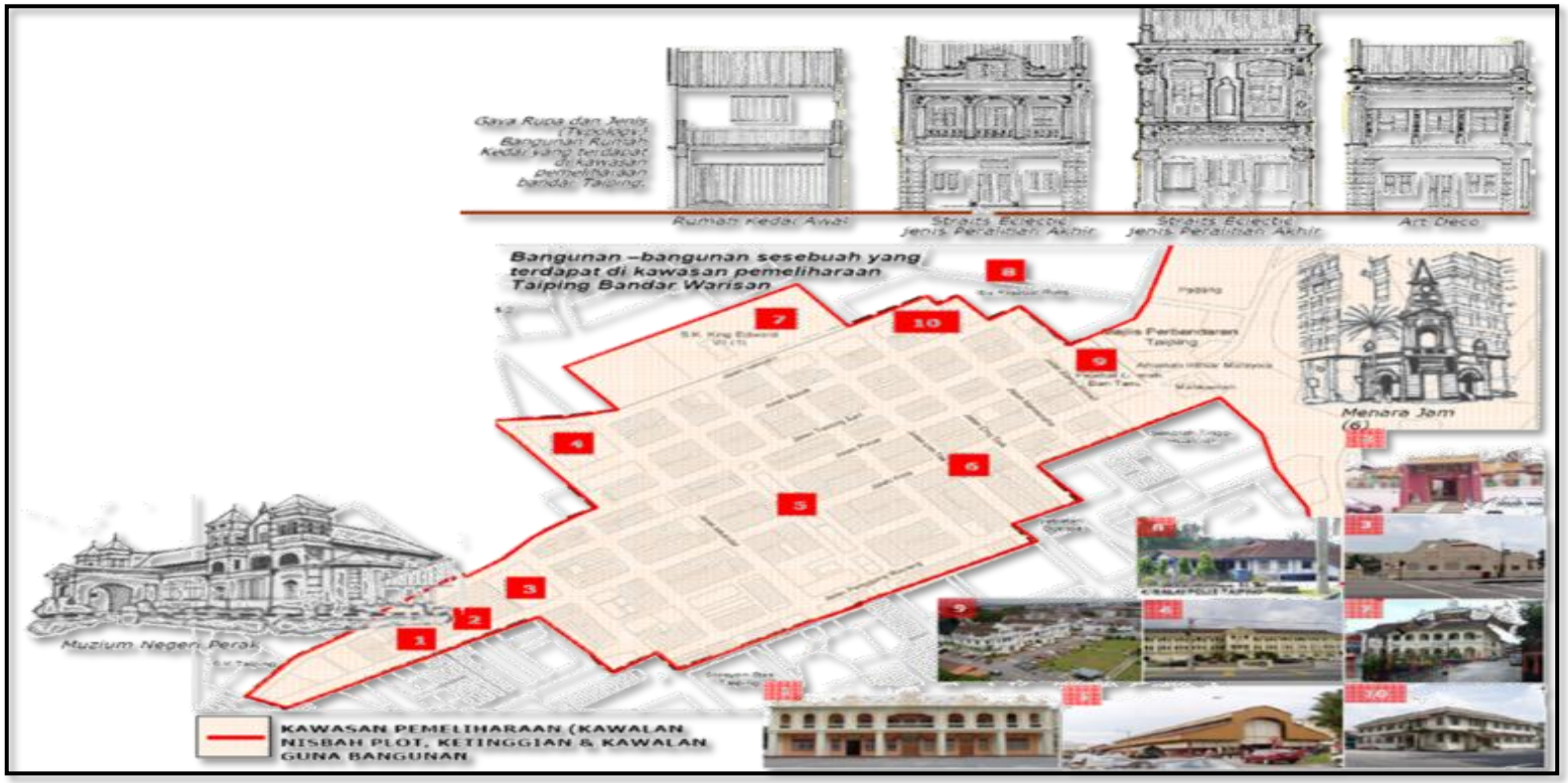


Figure 2.58 Study of Building and Typology in Taiping,Perak
Source: Majlis Perbandaran Taiping



Figure 2.59 Administrative Building in Taiping, Perak Which Rich with Architectural Features. Heritage Building



Figure 2.60 Old Shophouses in Taiping, Perak Which Rich with Architectural Features.



Figure 2.61 Old Shophouses in Taiping, Perak Which Rich with Architectural Features.



Figure 2.62 Kaki Lima at Old Shophouses in Taiping, Perak which Rich with Architectural Features

2.9.6 Conservation Strategies of Former Tin Mining Town in Gopeng, Perak

Gopeng is located in Lembah Kinta which is about 20 km of south Ipoh. It was a mining town in the state of Perak during the late 19th century and the most important mining town in Lembah Kinta until 1890 (fig 2.63). The town started as a small migrant Chinese settlement under apart of indigenous people living in the terrains and local communities from the village which came from Rawa and Mandailing. The development of town started with 60 wooden shophouses and theatre but was destroyed due to fire in 1886. A year later, new buildings were constructed together with 28 wooden shop houses in Kampung Rawa to cater needs of Malay merchants under the colonial rules which increased the population to 10000 people in 1887. During this time leader from Chinese clan such as Eu Kong Pui has work with Rawa leader such as Imam Prang in trading and mining activities in order to develop Gopeng as one of successful multicultural town in Perak.

Today Gopeng has developed with the physical forms and were organized in structured manners, which equipped with public facilities to cater public users. The old town was conserved with various programs in order to safekeeping the heritage value as an attraction to local and tourist. Some old buildings were preserved and adaptive reused such as the old horse stable which have been used as Gopeng heritage gallery and old shophouses which have been used as Topeng Heritage House. old gable shophouses and Raw shophouses also have been preserved and listed in groping Heritage trail as an attraction and awareness in conservation. However, the uncontrolled mix used development between new and old buildings have interrupt the identity of Gopeng as one of the old tin mining towns in Lembah Kinta. This could be seen especially from the building façade which have various architecture style (fig 2.64 & 2.65). From interview with the owner of Gopeng Heritage House and Gopeng Heritage gallery, local people have collaborated with the authority to promote Gopeng by creating Gopeng Heritage Trail. Twenty-four buildings which have historical significant and related to tin mining have been listed as an attraction. In present days, due to mix development between new buildings or uncontrolled renovation, the old buildings especially the shophouses seems to be ignored. Most of the buildings were left in dilapidated condition. The gallery has been closed due to sponsorship problem and lack of awareness to the public (fig 2.66 & 2.67).

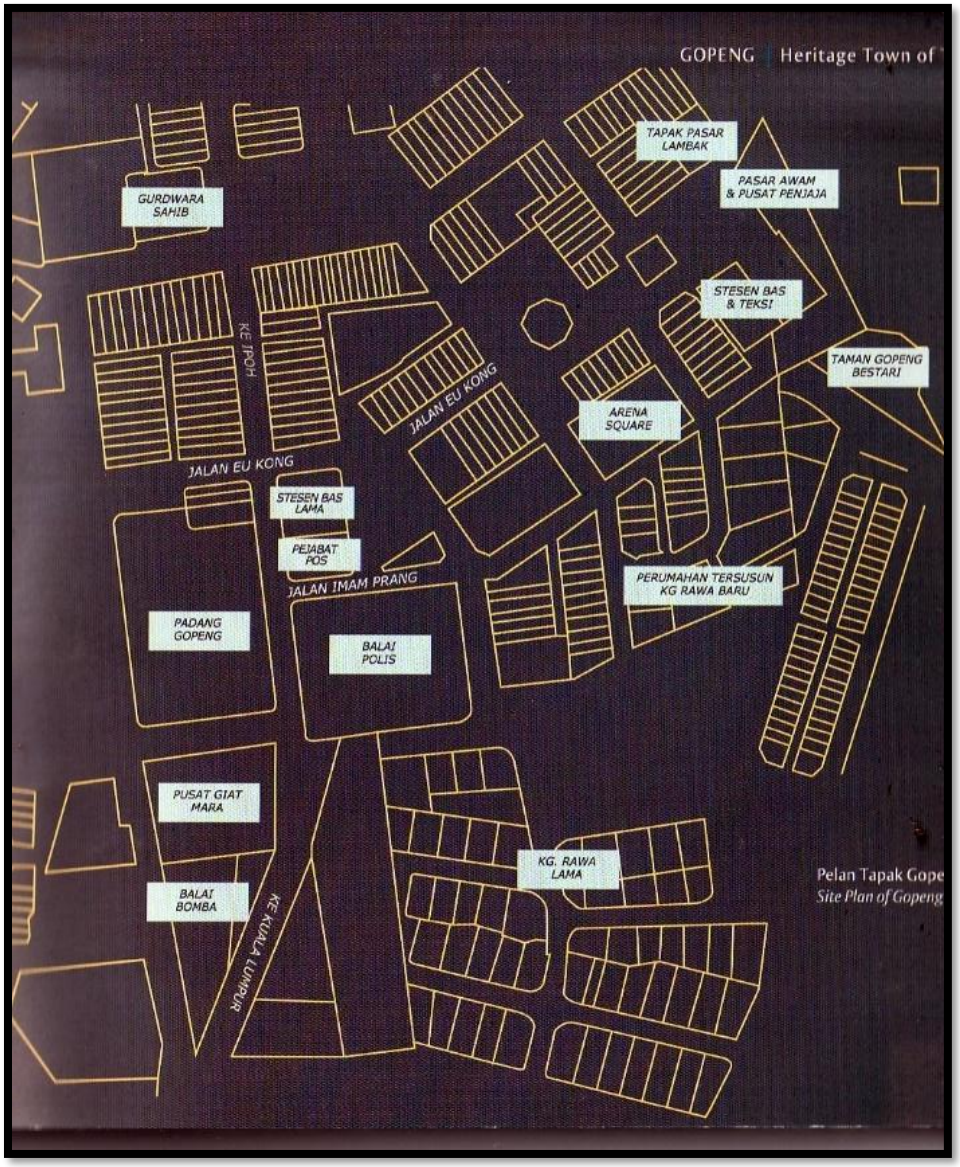


Figure 2.63 Location map of Gopeng , Perak Source: Badan Warisan Malaysia



Figure 2.64 Mix Development of Buildings in the Old Town of Gopeng, Perak Shows Variety Of Architecture Style.



Figure 2.65 Old Shophouses in Gopeng, Perak Have Been Adaptive Reused as Gallery and Museum.



Figure 2.66 Gopeng Gallery, Gopeng, Perak which was Operated and Funded by Local Community which have been Inactive Due to Lack of Promotion and Awareness to the Public.



Figure 2.67 Old Shophouses in Gopeng, Perak

2.9 Summary

In the cultural heritage conservation field, three main challenges were consistently faced:

a) Physical condition including Behaviour of materials and structural systems, deterioration causes and mechanisms, possible interventions, long-term efficacy of treatments.
b) Management context including availability and use of resources, including funds, trained personnel, and technology, political and legislative mandates and conditions.
c) Cultural significance and social values: Why an object or place are meaningful, to whom, for whom it is conserved, the impact of interventions on how it is understood or perceived.

Thus, the unmet need is for research that explains how conservation is situated in society how it is shaped by economic, cultural, and social forces and how, in turn, it shapes society. With this type of research, the field can advance in a positive way by embedding the spheres of conservation within their relevant contexts, informing decision making processes, fostering links with associated disciplines, and enabling conservation professionals and organizations to respond better in the future, through both practice and policy. Cultural heritage involves replacement as well as retention. Destruction is not simply an atavistic or aberrant kind of pathological behaviour to be outgrown. It is deeply embedded in human nature and society, part and parcel of economic and creative life. Like our forebears and our heirs, we make it our own by adding to it our own stamp. Heritage is never merely conserved or protected; it is modified both enhanced and degraded by each new generation

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Introduction

This chapter will describe in depth the design of the study, methodology, equipment and instruments which have been used in this study. The validity and reliability of the findings of a study greatly depends on the method of methodology appropriate to the objectives and scope of study. Hence, the research design plays a very important role as it provides an overall framework that reflects the planning of how research conducts its research.

3.2 Design and Approach of Review

In order to determine the approach of study to be used, detailed studies are done by listing research by former researchers. The selection is based on the scope of study that is similar to the physical aspect and urban conservation strategies, Table 3.1 shows the methodologies from past researchers related to the context of this study. Study by Rashid (2015) found that the selection of a study approach appropriate to the aim of the study was very important in determining the direction and objectives of the study.

Table 3.1

Methodology Studies Previous Researchers Related to Physical Characteristic and Cultural Heritage Conservation

	RESEARCHER, YEAR	DATA ANALYSIS		DATA COLLECTION							RESEARCH FAMILY			RESEARCH STRATEGY
		QUALITATIVE	QUANTITATIVE	IN- DEPTH INTERVIEW	VISUAL SURVEY	BEHAVIORAL SURVEY	OBSERVATION MAPPING SKETCHING	QUESTIONAIRE	DOCUMENT REVIEW CONTENT ANALYSIS	PHOTO RECOGNITION	QUALITATIVE	QUANTITATIVE	MIX	CASE STUDY
1	Lee Yoke Lai*, Ismail Saida, Aya Kubota, 2013 The Roles of Cultural Spaces in Malaysia's Historic Towns: The case of Kuala Dungun and Taiping	/			/	/		/			/			/
2	Shahrul Yani Said, hasnizan, Elma. 2013 Heritage Conservation and Regeneration of Historic Areas in Malaysia	/			/	/			/		/			
3	Shahrul Yani Said,2020- Townscape Appraisal And contribution of Physical Features Towards the Character of Ipoh Old Town	/		/	/	/			/		/			/
4	Shahrul yani Said 2025Evaluating Physical Changes for the Conservation Initiatives in the Historic City of Melaka	/	/	/	/				/		/	/	./	

5	Yazid Saleh, Suhaily, Nasir, Isahashim 2011 Peranan Kerajaan Tempatan dalam Pemuliharaan Bandar: Kajian Kes Majlis Perbandaran Taiping	/			/				/		/			/
6	Norsidah Ujang, 2008-Place Attachment towards Shopping Districts in Kuala Lumpur City Centre, Malaysia	/	/	/	/			/					/	/
7	Portsmouth City Council Local Plan, 2011	/			/				/		/			
8	Solihah Mustafa[1], Mazdi Marzuki[1], Ruzanna Syamimi Ramli[2], Jabil Mapjabil[2], Mohammad Kadir ZainalAbidin[2], Mohamad Pirdaus Yusoh[2] 2017-An Overview on Intangible Cultural Heritage in Malaysia	/		/	/		/	/	/	/	/			/
9	Rozliani Mansor, Md Azree Othuman Mydin, Norazmawati Md Sani @ Abd Rahim, Ruhizal Roosli, Hasnanywati Hassan 2012-Classification of Inheritance Shop Houses in George Town, Penang - UNESCO World Heritage Site	/			/				/	/	/			/
10	Suriati Ahmad 2013-The Importance and Significance of Heritage Conservation of the ex-tin Mining Landscape in Perak, Malaysia, the Abode of Grace	/		/	/	/	/		/	/	/			
11	May East 2017-Iintegrated approaches and interventions for the regeneration of abandoned towns in southern Italy	/		/	/	/	/		/	/	/			/

12	Khalilah Zakariya*, Zumahiran Kamarudin, Nor Zalina Harun 2016-Disparating The meaning of public place of a historic city.	/				/	/	/			/			/
13	Alain Bertaud 2005- “Urban conservation and market forces”	/		/			/	/	/	/	/			/
14	Minja yang 2016-UNESCO: Rivers and Urban Culture	/	/	/	/	/	/	/	/		/		/	
15	Orbasli 2002 Tourists in Historic Towns: Urban Conservation and Heritage Management	/	/	/	/	/	/	/	/	/			/	
16	Wan Ghaffar Ahmad 2025- Systematic Inventory for Heritage Shophouse Facades in Ipoh, Perak, Malaysia	/			/	/	/		/		/			
17	Shuhana. 1997-Systematic Inventory for Heritage Shophouse Facades in Ipoh, Perak, Malaysia	/	/	/	/	/	/	/		/			/	
18	loanis vogiatzakis 2014-Systematic Conservation Planning in a Mediterranean island context: The Example of Cyprus	/		/	/	/	/	/	/	/				
19	Mohd Rifzal 2023- Analysis Of Legibility Factor at Former Tin Mining Towns in Lembah Kinta, Perak towards Formulating Urban Conservation Strategies)	/	/		/	/						/		
20	Nor Haslina, 2018-Building Opening Design Contributing to Traditional Streets Walkability Character in Melaka Historical city.	/	/	/	/	/	/	/	/	/			/	
21	Nor Haslina, 2013-Perceptions on Quality of Life in Malaysia: The Urban-Rural Divide	/	/	/	/	/	/	/	/	/			/	

22	Affendi Bin Ahamad, 2004-Kajian bagi mengenalpasti karektor fizikal dan sosio-budaya bandar: kajian kes Melaka Bandaraya Bersejarah	⁄	⁄		⁄	⁄		⁄	⁄	⁄	⁄			⁄	
14	Minja yang 2016-UNESCO: Rivers and Urban Culture	⁄	⁄		⁄	⁄		⁄	⁄	⁄		/		⁄	
15	Orbasli 2002 Tourists in Historic Towns: Urban Conservation and Heritage Management	⁄	⁄		⁄	⁄		⁄	⁄	⁄	⁄			⁄	
16	Wan Ghaffar Ahmad 2025- Systematic Inventory for Heritage Shophouse Facades in Ipoh, Perak, Malaysia	⁄			⁄	⁄		⁄		⁄		⁄			
17	Shuhana. 1997-Systematic Inventory for Heritage Shophouse Facades in Ipoh, Perak, Malaysia	⁄	⁄		⁄	⁄		⁄	⁄		⁄			⁄	
18	loanis vogiatzakis 2014-Systematic Conservation Planning in a Mediterranean island context: The Example of Cyprus	⁄			⁄	⁄		/	⁄	/	/				
19	Mohd Rifzal 2023- Analysis Of Legibility Factor at Former Tin Mining Towns in Lembah Kinta, Perak towards Formulating Urban Conservation Strategies)	⁄	⁄		⁄	⁄							⁄		
20	Nor Haslina, 2018-Building Opening Design Contributing to Traditional Streets Walkability Character in Melaka Historical city.	⁄	⁄		⁄	⁄		⁄	⁄	⁄	⁄			⁄	
21	Nor Haslina, 2013-Perceptions on Quality of Life in Malaysia: The Urban-Rural Divide	⁄	⁄		⁄	⁄		⁄	⁄	⁄	⁄			⁄	

22	Affendi Bin Ahamad, 2004-Kajian bagi mengenalpasti karektor fizikal dan sosio-budaya bandar: kajian kes Melaka Bandaraya Bersejarah	/	/		/	/		/	/	/	/			/	
14	Minja yang 2016-UNESCO: Rivers and Urban Culture	/	/		/	/		/	/	/		/		/	
15	Orbasli 2002 Tourists in Historic Towns: Urban Conservation and Heritage Management	/	/		/	/		/	/	/	/			/	
16	Wan Ghaffar Ahmad 2025- Systematic Inventory for Heritage Shophouse Facades in Ipoh, Perak, Malaysia	/			/	/		/		/		/			
17	Shuhana. 1997-Systematic Inventory for Heritage Shophouse Facades in Ipoh, Perak, Malaysia	/	/		/	/		/	/		/			/	
18	loanis vogiatzakis 2014-Systematic Conservation Planning in a Mediterranean island context: The Example of Cyprus	/			/	/		/	/	/	/				
19	Mohd Rifzal 2023- Analysis Of Legibility Factor at Former Tin Mining Towns in Lembah Kinta, Perak towards Formulating Urban Conservation Strategies)	/	/		/	/							/		
20	Nor Haslina, 2018-Building Opening Design Contributing to Traditional Streets Walkability Character in Melaka Historical city.	/	/		/	/		/	/	/	/			/	
21	Nor Haslina, 2013-Perceptions on Quality of Life in Malaysia: The Urban-Rural Divide	/	/		/	/		/	/	/	/			/	

22	Affendi Bin Ahamad, 2004-Kajian bagi mengenalpasti karektor fizikal dan sosio-budaya bandar: kajian kes Melaka Bandaraya Bersejarah	⁄	⁄		⁄	⁄	⁄	⁄	⁄	⁄	⁄				⁄	
23	Nor Haslina, A. Bashri & Shuhana, 2012-The Contribution of Landscape Features on Traditional Streets in Malaysia	⁄	⁄		⁄	⁄	⁄	⁄	⁄	⁄					⁄	
24	Shuhana & A. Bashri 2011 Townscape Revisited: Unravelling the Character of the Historic Townscape in Malaysia	⁄	⁄		⁄	⁄									⁄	
25	Nor Haslina, 2022-What makes an attractive user-friendly street-exploring perceptions of Mawlawi shopping street environment in the context of SulaymaniahCity, Iraq.	⁄	⁄		⁄	⁄			⁄						⁄	
26	Norfaizah Ahmad Badri, 2014 Conservation of Heritage Curtilages in Kuala Lumpur, Malaysia	⁄	⁄		⁄	⁄	⁄	⁄	⁄	⁄					⁄	
27	Subhasish Borah, 2015-Re-imagining Streets as Public Spaces Implications of Urban Design and Human Behaviour_A Case of Ahmedabad City	⁄	⁄			⁄	⁄		⁄						⁄	
28	Mohga Embaby, 2015-Sustainability and Heritage Buildings	⁄				⁄	⁄									
29	Nor Zalina Harun et al, 2017-Changes and Threats in The Preservation of The Traditional Malay Landscape	⁄	⁄			⁄			⁄	⁄					⁄	

30	Ong Han Yun, 2025 The Impact of Tangible Heritage Towards Historic Building Usage in The George Town UNESCO World Heritage Site in Penang, Malaysia.	/	/		/	/	/	/	/		/			/	
31	Alpana Sivam & Sadasivam Karuppannan, 2014-Preserving cultural heritage of Denpasar: local community perspectives	/	/			/			/					/	
32	Zalina Samadi & Rodzyah Mohd Yunus, 2011-Evaluating Revitalizing Toolkit towards a Quality Heritage Street Establishment	/			/	/				/		/			
33	Noor Aimran Samsudin et al, 2018-Preserving the Characteristics of Urban Heritage: An insight into the concept of Malaysian Royal Towns	/				/				/		/			
34	R.A. Oppong et al, 2018-Conservation and character defining elements of historical towns: A comparative study of Cape Coast and Elmina streets and castles	/				/		/		/					
35	Musaab & Rawia, 2017-Character of Traditional Street: An Overview of Physical Components Associated with Building, Landscape and Street Pattern in Royal Town	/	/		/	/			/	/				/	
36	Norhafizah, 2015-User Friendly Street in Malaysia	/	/			/			/	/				/	
37	Mohadesh Mahmoudi et al, 2014, 2015-Physical Attributes of Streetscape in the Inner City of Kuala Lumpur: Case Study of Bukit Bintang Street and Tun Perak Street	/	/			/			/	/				/	

38	Wan Hashimah Wan Ismail, 2014-Preservation and Recycling of Heritage Buildings in Malacca	⁄		⁄	⁄				⁄		⁄			
39	Musaab & Turki, 2017-Physical Appearance and its Roles in Influencing Sense of Place to Commercial Streets in Mosul City Centre	⁄	⁄	⁄	⁄	⁄		⁄	⁄				⁄	
40	Hazhar Muhammad et al, 2016 Impact of Street's Physical Elements on Walkability: A Case of Mawlawi Street in Sulaymaniyah, Iraq	⁄	⁄	⁄	⁄			⁄					⁄	

In table 3.1, it can be formulated that there are three approaches of study that are often used which are qualitative, quantitative and combination approaches which are determined by the research objectives and outputs. Majority of researchers use qualitative approaches which focus on having the overall conclusion of the conservation approach and proceeds from the sample population of the study. The qualitative approach is more realistic as it has an advantage in the aspect of ' story delivery ' from the perception and the feedback of the respondent. This approach resulted in a description of data that is more focused, deeper and very appropriate with the nature of the study exploration (Jaafar 2014; Harun & Jalil 2012).

This study uses a case study approach to enable an in-depth investigation towards a specific phenomenon, setting, process and relationships (Creswell, 2009). Which applies to the built environment research because it enables the combination of multiple factors that include social, physical, environmental and economic aspects. This study adopts a single case approach to analyse the specific qualities of physical characteristics inclusive of cultural landscape, urban structure and Architectural features of the old town. Qualitative approaches (descriptive) have been used which involve data collection and data analysis for both approaches in a study (Creswell, 2009). The approach was chosen because (i) helps offset data review (ii) enriches data Review (iii) the use of case studies as a research strategy helps to pursue subjects and scope of research better.

. In addition to case studies, the field survey technique was also applied under a qualitative approach. This technique requires the assessment to be on the site of case studies to get a real picture of the area. According to Miskell (2008), studies involving the ' character ' element require that the reviewer be at the site of the case study as it is important to assess the elements that influence and shape the character of the place. Thomas (2002) found that this technique allows the data of visual form and the background of the study can be described when analyzing the character. Manley & Guisse (1998) Thought of important site survey techniques because of the physical patterns and urban activities involved in the sense of human senses such as seeing (visual observations), listening (noise) and smell.

According to the Adler & Clerk (2008), this technique involves a large sample, and it involves many variables from one sample, and the next data is analyzed. In addition, the detailed information obtained from the public and stakeholders will be recorded through the observation method and in-depth interview (Jaafar 2014 from Yin

2003; Mulenga & Mukuka 2007). Hence, the justification above shows the most visible combination of the background and research objectives focusing on physical elements that contribute to the character of the old town especially for Papan on how it is unique compared to other old towns.

3.3 Research Strategy

A research strategy which has been applied to this thesis is a single case study which is often used by past researchers in the context of urban conservation studies. Jaafar (2014) of Yin (2017) noted that a single case study could represent a critical test of the importance of a theoretical. The case study techniques are capable of helping to clarify relationships and patterns that influence the context of the study. It is achieved through data and detailed information obtained based on the study subject, which is the physical character of the old town. These data and information are contributed through various data collection methods collected based on the context and scope of actual studies within a given period (Tobi 2013; The man's deed 2012; Rahman 2010; Babbie 2010; Yin 2009). Based on the study by Jaafar (2014) from Abdul Latip (2011), case studies are very appropriate as it focuses on the cultural landscape, urban structure and architectural features of the surrounding context. It is also able to get the background and history of the study area by using various research approaches on it. The research is more detailed and richer with additional information is obtained directly and indirectly.

The selected area as a case study involves three main zones, which are the old shophouses of Pekan Papan, the Mandailing settlement area around Rumah Besar Raja Billah and local community houses which were used as dwellings for tin mining workers. These buildings are located along main road, street and backyards and selected on a number of factors. Pekan Papan is the earliest former tin mining towns which is rich in the history of the Perak from its economy and cultural diversity. This study has uplifted the value of the township in the context of physical characteristics which are rich with various cultural landscapes, urban structure and architectural buildings which integrate together with its natural topography, the tin mining pond and urban fabric such as buildings, public area and streets as a public-rich area which generate the sense of place. Its distinctive characteristics also have a unique, creative and exciting cultural heritage element that makes the integration of its cultural diversity and activities that

highlight the area's privileges. There are various categories of buildings around the road such as buildings, mixed commercial, civic and residential that make study data more attractive and the urban design itself has a responsive feature on its surroundings and is one of the most successful and characteristic design features in old town of Perak.

3.4 Implementation of the Study

The study was focusing on the physical characteristics of the towns which consist of the tangible quality in the former tin mining town. The aim of the research is to create strategies for the purpose of urban conservation and to regenerate the interpretation of cultural heritage value. The qualitative method used mainly based on primary and secondary data The primary data are collected focusing on case study of selective town by using in depth investigation and observation towards a specific phenomenon setting of the physical characteristics, development process and relationship to the local cultural activities while the secondary data are collected from others include reports, journal, articles and book. This study involved three phases of data collection planning where phase One is the formation of a theoretical frame, phase two involves pre-investigation and three phases involving final investigations.

Phase I - Skeletal Theoretical

Phase I involves forming the theoretical Study in which it has been developed from the literature review in chapter 2. This theoretical framework is important in determining which variables have been used during the data collection and analysis. In this phase the definition and concept of tangible in urban conservation have been defined through the understanding of physical character and its relationship to cultural heritage. Examples of previous conservation strategies have been reviewed in order to find the appropriate method to suit Pekan Papan as it is quite a unique town where most of the building structure were abandoned. Therefore, a similar case study of urban conservation methods has been reviewed in order to find its similarity.

Phase II -pre-investigation

Phase II involves pre-investigation which includes data collection techniques from theoretical framework, primary data collection from observation, photograph, in depth interview and focus group discussion. Based on the theoretical framework in phase one, before obtaining the area data, a Pre-release of documents have been made. Upon completion of the process of documentation, the study was conducted using

observation techniques from photograph and aerial mapping to ensure reasonableness data prior to the collection of actual detailed data. Observation technique especially from photographic evidence is very significant for this research. It was decided to record digitalised still images for the research. The most important images for this research are images of abandon shophouses, and Malay Community consist of Rumah Besar Raja Billah, Masjid Papan, and Rumah asal as a case study. With the images, a clear picture and visual of the town appearance are presented. For this research, images and photos were taken during the site visit, site familiarisation and visual observation through camera and aerial picture from drone. The still photograph is very useful as a permanent record for the case study or area.

In depth interview have been arranged involving experts in conservation from authorities, NGO, academician and local community to understand the approach on the conservation strategies for abandon town like Pekan Papan. Focus group discussion have been arranged to validate the method and result of the appropriate conservation strategies. The main goal of this in-depth interview technique is to identify the questions why the physical components informed by the respondent should be conserved which can contribute to the urban conservation strategies. This technique is used by the last researchers on the image, identity and physical character of the urban environment including the roads, streets, architectural features and cultural landscape. This in- depth interview technique is able to meet the diversity of objectives such as identifying issues, program determination and evaluation requirements. Yin (2017) also supported this technique for studies using case study approach such as this study would record data in detail and comprehensive from the opinions of the first respondent

Phase III -Final Investigation Phase III encompasses Qualitative approaches that involve collective overall data collection. A summary of all three phases (Fig 3. 1).

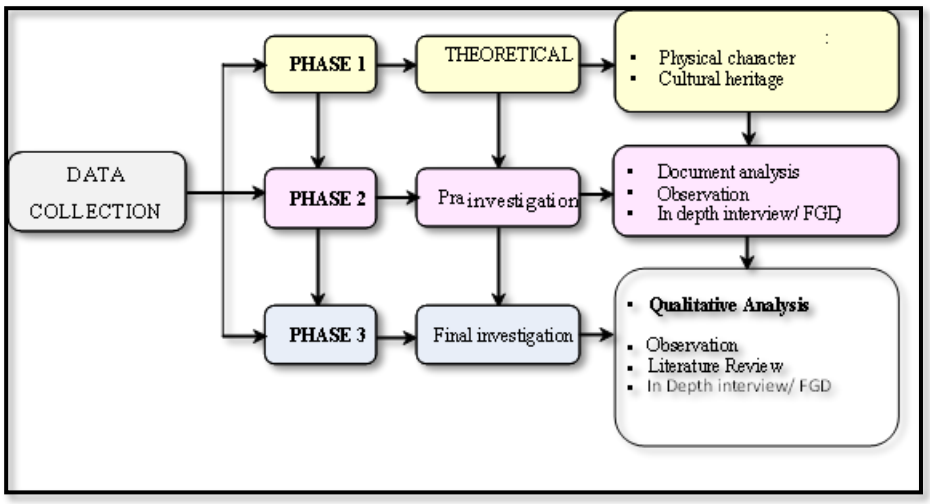


Figure. 3. 1 Summary of Data Collection Methods

3.4.1 Techniques of data Collection

This subtopic described in detail the techniques to be applied for qualitative analysis. An in-depth explanation has been made about the factors affecting its selection, objectives, procedures for collecting information and how the data have been analyzed. Interrelationship between the techniques of collecting the data and the units to be used for measuring (measurement units). The study questions and objectives shown in Table 3.2

Table 3. 2

Relationship Between Techniques for Study

STUDY OBJECTIVES VERSUS STUDY TECHNIQUES				
STUDY OBJECTIVES-1				
Study Questions	Objectives of the study	Data Collection (What is measured)	Analysis method	Technique used
What are the distinctive physical characteristics in the former Tin Mining Towns in Lembah Kinta, Perak which could generate the cultural heritage value in conservation?	To identify the physical elements in the former tin mining towns which have distinctive characteristics towards formulating urban cultural heritage	**Aspect of appearance** -Component - Cultural Landscape - Urban Structure - Building -	Qualitative analysis	**In-depth interview** To make interviews in depth with experts such as authorities, NGO, Academician and local community regarding appearance of urban structure, building components and landscaping that contribute to physical character and cultural heritage in the town **Observations (Visual surveys)** Create a visual survey by looking at physical appearance for building and landscape components that form an urban character in the town. **Historical document Analysis**

	conservation strategies			To study the historical aspects of various sources from the appearance of building components and landscaping in term of usage, urban morphology and cultural aspect. affecting the character in the town.
				Literature Review To support the findings of study with the resources from previous theories that have been developed and the results of research obtained by researchers in the same context of the study.
STUDY OBJECTIVE 2				
Study Questions	Objectives of the study	Data Collection (What is measured)	Analysis method	**Technique used**
2. How could the physical characteristics in the former tin Mining towns in Lembah Kinta Perak could generate the cultural heritage entity	To analyze the unique characteristics of physical elements from the tangible and its quality to the cultural	**- Urban Structure** **- Architectural features** **- Cultural landscape** -Opinion about Papan	Qualitative Analysis	**Legibility study** To review the legibility factor of the town from the layout of town, building appearance and its usage which contribute on the understanding of the character and its cultural activities which create the sense of place.
			Qualitative analysis	**User-in-depth interview** To do interviews in depth with experts on the appropriate conservation strategies.

towards formulating urban conservation strategies	heritage elements towards formulating urban conservation strategies.	Experts opinion Legibility Factor	 Qualitative analysis Qualitative analysis Qualitative analysis Qualitative analysis	In depth interview with local community to understand their experience and opinion on the existing condition of the town.
				Observations (Visual surveys) Create a visual survey by looking at physical appearance for building and landscape components that form an urban character in the town.
				Observation (activity Mapping) Create a visual survey by recording activities surrounding the cultural landscape and building components that forms the urban character in the Royal city.
				Document Analysis To study the historical aspects of various sources from the appearance of building components and landscaping affecting the urban character in the town.
				Literature Review To support the findings of study with the resources from previous theories that have been developed and the results of research obtained by researchers in the same context of the study.

STUDY OBJECTIVES-3

Study Questions	Objectives of the study	Data Collection (What is measured)	Analysis method	**Technique used**
3. What are the suitable approach and references which could be used as guidance in formulating the conservation strategies in order to safe keep the cultural heritage entity in the former Tin Mining Town in Lembah Kinta, Perak.	3. To propose and validate appropriate conservation strategies the benefit of nation cultural heritage entities and stakeholders.	Aspect Of function Urban Conservation strategies	qualitative	**Focus Group Discussion** The invention of the study for the objectives of study 1 and 2 will be through the process of validation through the technique of discussion of focus group with the parties who have deep proficiency and knowledge in the scope of study. The results of the discussion are the list of approved final strategies that attempt to contribute to the stakeholders.

3.5 Data Collection Techniques for Qualitative Analysis

3.5.1 Design Approaches

Semi-structured interview has been applied in this study because this technique is suitable for exploration Studies as this study is due to the lack of data and similar studies (Hamzah et al. 2009; Mathers et al. 1998). In addition, this technique requires a basic structure of questions provided as a guide during the interview session. Researchers need to ensure that the question structure includes all the variables that are reviewed so that the interviews can record detailed information for each variable (Kumar 2009; Collins 2010, Mansor 2011). Through interviews, various additional questions can be forwarded to users to support the initial interview results to enrich the end data.

For this study, the question structure is based on the objective of the study which encompasses the appearance of physical characteristics such as building components as well as the objectives of study which include functional aspects of the same component. During the interview session, in order to facilitate the respondent to understand questions, the indicators to measure each physical component have been used and for character elements, based on the study of previous research, it is measured based on several indicators as shown in Table 3. 3 below.

Table 3.3

Measurement Indicators for Character Elements

Indicator measuring legibility characteristics		
Indicator	Description	Referral Source
Describe	Drawing Describes	Language and Library Council Brighton & Hove City Council (2009)
Explain	Explain Explain Describes	Language and Library Council Brighton & Hove City Council (2009)
Identify	States Show Prove	Language and Library Council Brighton & Hove City Council (2009)

Indicator measuring Place character		
Character	Unique Important Exceptional Image Identity Form	Jaafar (2014; 2012a, 2012b) Lindsay et al. (2009) Lynch (1960) Ahamad (2004) Shamsuddin et al. (2002) Miskell (2008) Kropf (1996) Manley & Guisse (1998)

Source: Jaafar (2014)

3.5.2 Respondent Selection

For this study, three categories of respondents have been involved i.e.

i) The local community or the knowledgeable population of the study area
ii) Expertise on the conservation
iii) Visitors who have interest in Pekan Papan.

According to the previous character study, the local community's opinions and perception of the conservation strategies is crucial as the group living in the vicinity has a profound knowledge of the study area (Alfrey 2010; Alizadeh 2005; Manley & Guisse 1998). Through an in-depth interview technique, researchers will get information on physical elements that contribute to the existing town condition as well as information on historical background and heritage, way of life, culture and evolution of such as (Alizadeh 2005). This is because History and heritage are an important aspect that contributes to the place character. The other respondent consists of officers from local authorities, academicians, historians and visitors which have experience in conservation works especially in Perak and who have interest in Pekan Papan. They were chosen to give different insights and views of the image and physical character of the local community (Ismail & Shamsudin2012).

In this study, the selection of respondents does not take into account the socio-demographic background because it is not included in the research objectives. This is in line with the studies of Jaafar (2014) and Latip (2011) that for the qualitative study,

the selection of respondents should be relevant to the objective of the study as compared to the nature representing of the study population. It also depends to the willingness and cooperation given by the respondent due to the long-term interview usually that is in an estimate of one to two hours.

3.5.3 Sample Size

For qualitative studies, the detailed interview techniques are centered on the selection of respondents who are able to meet the study's questions and objectives in detail. Therefore, it does not require large quantities but more to the quality of information (Shamsuddin 1997). According to Walker (1985) the size of sample between 20-40 respondents was appropriate when the study also used a questionnaire. This is in line with the opinion of Shamsuddin (1997) that the selection of sample size for qualitative studies does not need to be rigid than the sample of quantitative study based on the study of Literal, the sample size appropriate to the study involving the techniques of this survey within 20 to 40 respondents (Table 3.4)

Table 3.4

Tabulation Of Researcher and Number of Respondents.

Research	Number of Respondents
Jaafar 2014- Building Opening Design Contribution to Traditional Streets Walkability Character in Melaka Historic City.	21
Suriati Ahmad. 2013- The Importance and Significance of Heritage Conservation of the ex-tin Mining Landscape in Perak, Malaysia, the Abode of Grace	20
Shuhana Shamsuddin 2015- Walkable Environment in Increasing the Liveability of a City	20
Mohammadjavad Abbaszadeh et al (2011) The Influences of Physical Features of Space on Sense of Place",	30

Hence, the sample size of this study is 21 respondents (Ref table 3. 5). For this study, 21 respondents have been chosen based on the expertise, locality and their phase

familiarizing them in the study area. 8 people who are experts and have background of conservation, historian, author, architecture and Interior design which have been chosen in order to get their opinion on Pekan Papan. All this expertise has experienced visiting Pekan Papan at least once and understood the current situation of the town. For the non-expert but local the interview was based on their experience living or working in Pekan Papan. 3 of them are successors of Raja Billah but have migrated to another place.

Table 3. 5

Respondents ' Profile for In Depth Interview

In Depth Interview Technique respondents' profile						
Code	Name	Responden category	Address	Job	Gender	Phase study Familiarizing Less Familiar- LF Area-F VEry Familiar-F
R-1	Pn Mas Ayu	Expert / Non Local	Kuala Lumpur	Officer Jabatan Warisan	F	F
R-2	Ms Ellie Ng	Expert/ Local	Batu Gajah/ Papan	Artist	F	VF
R-3	Mr Sundra Lingam	Expert/ Non local	Teluk Intan	Officer	M	F
R-4	Mr Chang	Non Expert/Local	Papan	Farmer	M	VF
R-5	Mr. Law	Expert/ Local	Papan	Traders	M	VF
R-6	En Bidin	Non Expert/ Local	Batu Gajah	Guard in Srjk (C) Papan	M	VF
R-7	Salma Khoo Nasution	Expert/ Non local	Penang	Conservator	F	VF

R-8	En Hisham	Expert/ Non local	Kampar	PHS officer/ School Teacher	M	VF
R-9	En Abdul Razzaq Lubis	Expert/ Local	Penang	Author/ historian/ Raja Bilah successor	M	VF
R-10	En Azwan	Non Expert/ Local	Papan immigrate toTeluk Intan	Businessman/ Raja Bilah successor	M	VF
R-11	Philip Durann	Expert/ Non Local	Belgium	Photographer	M	F
R-12	Mak Esah	Non expert/ Local	Pusing	Hawker	M	VF
R-13	Ms Leong	Expert/ Local	Papan	JKKK	F	VF
R-14	Malik Samsudin	Expert/Non Local	Kampar	Traders	M	F
R-15	Afzanizam Muhammad	Expert/ Non local	Sri Iskandar	Lecturer UiTM Seri Iskandar	M	F
R-16	Mr Jacky Chew	Non expert/ Non Local	Ipoh	Curator Perak Tin mining Museum	M	VF
R-17	En Yusof	Expert/NonLocal	Ipoh	Editor Papan Coffee book	M	VF
R-18	Pn Hafidzah	expert/Local	Papan migrate to Teluk Intan	Pensioner/ Raja Bilah Successor	F	VF
R-19	Azlan Sharif	Expert/ Non local	Batu Pahat	Historian	M	F
R-20	Dzulkhairi	Expert/ Non local	Hulu Langat	Interior Designer	M	LF

R-21	Fahmi	Expert/Non Local	Muar	Construction workers/ Architecture	M	LFg

3.5.4 Recording in Depth Interview

To record information and data obtained from an in-depth interview technique, face to face and detail questionnaire are the medium used (refer appendix) while notebook is used to record the interview. The book is functional to record a summary of the information to support the non-recorded data (Augustin & Coleman 2012). During the interview, Malay and English language sessions are used in conversations according to the background and comfort of the respondent.

3.6 Technique in Observation

Observation techniques, especially photographic evidence, are very significant for this research. It was decided to record digitalized still images for the research. The most important images for this research are images of abandon shophouses, and Malay community consist of Rumah Besar Raja Billah, Masjid Papan and Rumah Asal as a case study. With the images a clear picture and visual of the town appearance are presented. For this research, images and photos were taken during the site visit, site familiarization and visual observation through camera and aerial picture from drone. The still photograph is very useful as a permanent record for the case study area. Observation techniques were divided into two namely visual and mapping of activities. are divided into two i.e. (i) Visual and (ii) mapping of activities.

3.6.1 Visual survey

In the area study of urban environment, visual survey techniques are frequently used techniques by past scientists such as Lynch (1960), Jaafar (2014); Basingstoke & Deane (2008); Cullen (2012); Worskett (1970) and Shamsuddin (1997). This technique is intended to look at appropriate urban conservation strategies based on three main physical components, namely urban structure, building and cultural landscape

components. This technique has evaluated the condition of its surroundings, town image and historical importance (Jaafar 2014; Shamsuddin 2011; Moughtin & Mertens 2003). To assess the character of a place, a subjective visual assessment, an examination against Archaeological evidence and a historical record must be made (Worskett 1970; Alfrey 2010; Miskell 2008).

This technique is able to explain in depth the shape, composition and appearance of cities in detail (Shamsuddin & Sulaiman 1999; Spreiregen 1965). This technique also enables the researchers to evaluate the assets and characteristics of an item and drawback through SWOT Analysis (Moughtin et al. 2003; Spreiregen from Watson et al. 2003). As a result, researchers can learn the strengths, weaknesses, Opportunities, obstacles and proposed improvement to be taken in a study area (Sarvarzadeh & Abidin 2012). However, according to Shamsuddin (2011), the downside of this technique is the possibility of an unbiased element from the perspective of observers due to the approach of a subjective-shaped study (Worskett 1970) or Phenomenology (Cullen 2012). Therefore, it is important to have skills in assessing physical Components observed through a visual and comparing them to urban design theories from past researchers. As such, researchers will get a result of a quality visual review, relevant and appropriate to the scope and objectives of the study based on the theory of the relevant past tour. Shamsuddin & Sulaiman (1999) also supported the use of this technique as it challenged the thinking of researchers to make more widespread and creative analysts.

3.6.2 Direct & Indirect Observation

This study will use direct observation and unstructured observation approaches, in the survey. According to Flick (2009) and Sulaiman (1988) and Sekaran (2010), Direct *observation* requires that the reviewer be at the site while unstructured observation is subjectively done. To try Primary data through this technique, Researchers use three ways, through observation, examination and measurement for the study of physical character. (Jaafar 2014; Mulyadi 2008; Anwar 2006; and Shamsuddin 2011). Measurements of physical elements are one way of obtaining the right conservation approach.

3.6.3 Equipment for Observation

Some equipment is required to record data for this observation technique. According to Jaafar (2014); Latip (2011); Moughtin (2007); Alizzadeh (2005). notebooks, sketch books, segment maps, inventory forms, cameras, drones, pens and pencils are among the tools used to record data. Data recording was done either by foot or by car. By foot, the study is able to appreciate all the physical elements that are included in the building and landscape components. With vehicle, observations against the study and its surroundings can be made with more emphasis. This technique also used by Jaafar (2014); Mulyadi (2008); Mehta (2006) and Salim (1992). In Order to record a long-term physical appearance, researchers have produced sketches on the site using pens and paper so that the existing condition of the town can be shown as a whole in the forms of inventory and diagrams.

In order to record data for this technique, several methods were determined based on building Components, urban structure and cultural landscape. from the aspect of the appearance were obtained through methods of analysis of documents from various sources such as Local authorities and other sources. This Data was then recorded and updated through Building inventory. This building inventory contributes to the legibility of urban character through the quality of attraction, visibility and human scale and cultural Landscape component Based on table 3.6, parameters and measurement of landscape components from the aspect of the colored appearance through the detail, shape, texture, colour and scenery (Shamsuddin 2011). Accumulated Data is recorded using segments map and sketch map. The contribution of urban components on street character is the quality of attraction, visibility, human scale, bracket space and Comfort. To facilitate the measurement of observation techniques, a list of indicators to gauge the town character from the appearance of buildings and landscaping has been prepared to facilitate the study (Fig 3.2).

Table 3. 6

Character Measurement Indicators

Indicators to measure legibility from building character and cultural landscape		
Quality	Measurement indicators	Referral Source
Physical appearence	Attractions are categorized from physical, social and cultural aspects Related to the mixed use of a road, variety of activities, places of interest with its buildings and architectural elements Attractions or desires related to quality involving eyes i.e. aesthetic value and quality of fun The attraction of the study refers to the physical aesthetics value for the appearance of buildings and landscaping	Rahman, N.A. (2011); JPPD (2003); Gehl (2010)
Visibility	Visibility can be considered visually reliable High visibility is associated with imageability or clarity of place The visibility of this study refers to physical elements of buildings and landscaping that contribute to visibility and recognition	Kalin & Yilmaz (2012); Appleyard (1980)
Human scale	The human scale refers to: (i) size (ii) texture (iii) Articulation of physical elements	Jaafar (2014); Pagliardini et al. (2010); Purciel et al. (2006)
Comfortable	Comfort is a state of great feeling Covering human and environmental aspects: (i) Psychology (ii) Physiology (iii) physical Highlighting a comfortable and attractive environment	Latip (2011); Ryeng (2002); Sakar (2003)

	The comfort in this study refers to the physical aspects of	
Safety	Safety for physical elements involving psychological aspects In this study, the psychology character analyzed in a physically	Ja'afar (2014); Abaszadeh (2011)

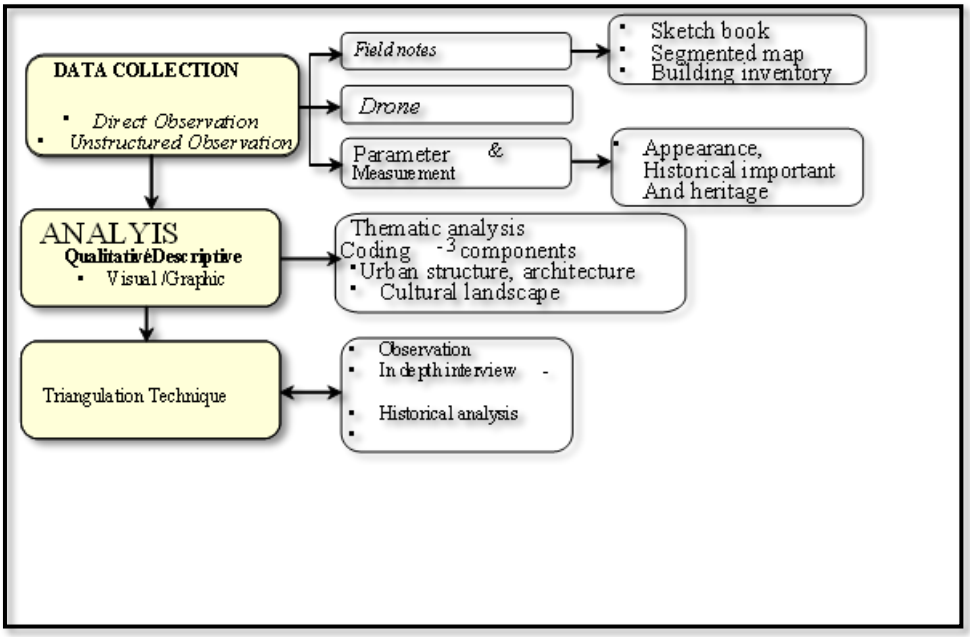


Figure 3. 2 Summary of Observation Technique

3.7 Observation Techniques from Mapping Activities

Observation techniques through the activity mapping is one of the techniques often used in reviewing the physical character of the place from the aspect of the function by past researchers such as Shamsuddin (2011); Alizadeh (2005) and Mehta (2006). According to the Shuhana's study, the behavior is human reaction to its surroundings as these two elements (behavior and environment) have very strong relevance to each other. This technique is intended to identify the relationship between the tangible and intangible elements that include identification of activities and related

to the appearance of design from building components and the study of landscape. Identification of activities are related to the functions of the buildings and landscaping survey through identification of activity patterns that include the type, time, day, frequency and change of human activities on the environment in order to obtain the relationship between space and function/purpose. The advantage of this technique is, the observers are able to gain deep understanding of the subjects of the study. Researchers also learn how to recognize space patterns which are very closely related to the aspect of the area and its surroundings (Rapoport 1977). It can also to recognized character of the study area when researchers ask about how the building works based on the user activity (Bechtel and Ziesel 1987). Based on this advantage, this technique is chosen because it is appropriate to achieve the objectives while the weakness of these techniques is that researchers will easily feel tired as these techniques take a long time to get a true picture of the study area for each revised variable.

3.7.1 Data Collection Methods

This technique has been implemented from two approaches i.e. (i) Direct observations and (ii) unstructured observations Data for this design approach were grouped through two methods i.e. (i) Photographic documentation and (ii) Activity documentation (Jaafar 2014; Rahman 2011; Mehta 2015). To record the functions, activities and behavior patterns, photographs and sketches for each road segment in the setup to create a ' map of activities ' to identify activity types and location (Jaafar 2014; Shamsuddin 2011), (Fig 3. 3.) According to the Shamsuddin Study (2011), the map of activities helps the study describe the relationship between the physical environment and public space, the correlation between the roads and activities and the correlation between the user's social structure and the time limit. According to Mehta (2015), and Shamsuddin (2011), data collection methods for mapping activity was able to answer questions such as what, when, where and who. However, for direct observation approach, a passive observer was not directly involved with the observation activity (Flick 2007). For activity mapping approach through walking (*walk-by observation*), all information is recorded as information such as social groups of users and social activity types (involving criteria such type of activities happened at the old town components as well as environmental conditions According to Mehta (2006) who also applied this approach, it will allows the researchers to identify areas that are public-

focused through the plan sketch on the form of activity P. Mehta (2015) also suggested that photograph is used as a method of recording of activity in each zone. This study involved 4 zones which are related to history and its urban morphology. Abdul Latip (2011) states that the use of photo photographs and activity mapping forms are able to assist the researchers to identify patterns and types of activities by recording activity changes over time. It is also related to physical character and its function.

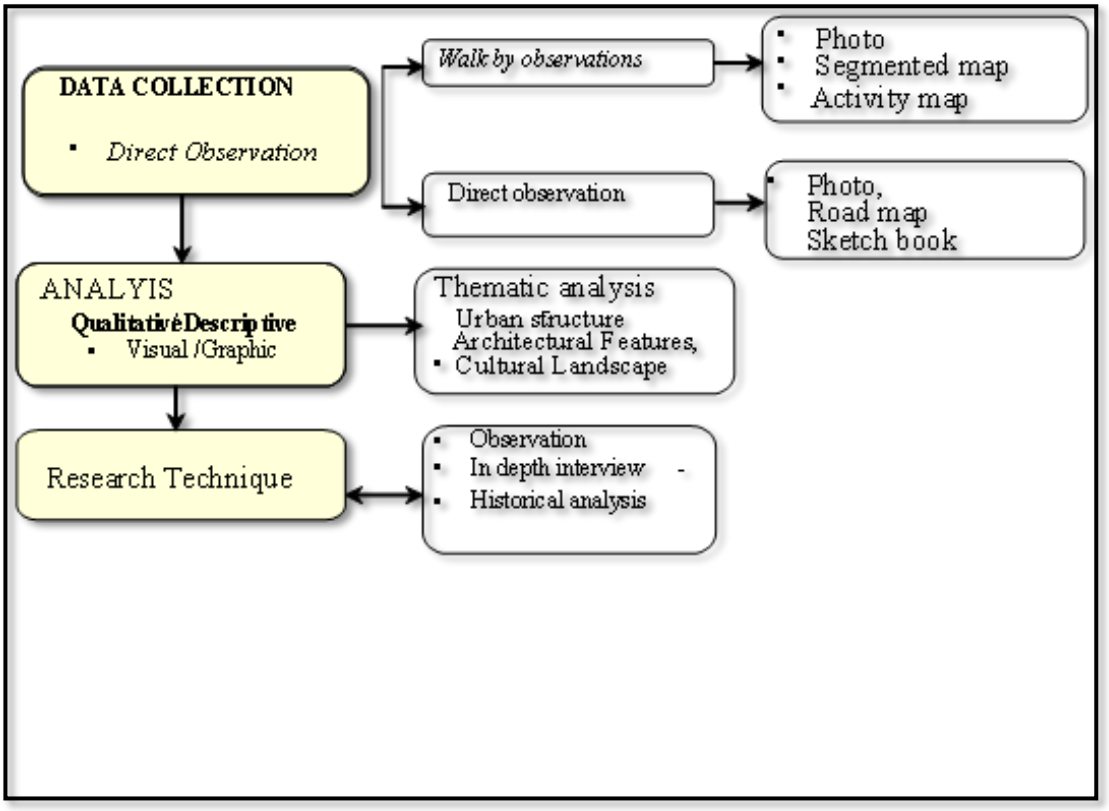


Figure 3.3 Method of Research Through Mapping Activities Source: Jaafar 2013

3.8 Historical Document Analysis Techniques

This technique is chosen as most of the studies concerning the character and identity of the place are obtained through historical evidence and archaeological discoveries recorded in official documents. This technique is very synonymous with studies that have been made by the review relating to the character of the place such as Jaafar (2014); Samadi et al. (2012) and Anwar (2006). According to Jaafar (2014), the

goal of this technique is to examine the background of early history and its development, the initial placement and morphology of the study area. The scope of study including history of original building designs, landscape art patterns and garden decorations and the history of urban patterns such as roads and other facilities that formed the character of the town. All of these elements contribute to the value and ' meaning of the place '. Thus, this technique can increase the interest of a review of Something (*genius loci*) and the character of place Shamsuddin (2011) and Moughtin et al. (2003)

3.8.1 Data Collection Methods

The main reference sources to collect data on history are through printed and electronic media, old manuscripts, official government publications and other scientific references (Jaafar 2014; Shamsuddin 2011; Samadi et al. 2012; W Ismail 2009, Miskell 2008) (Table 3. 7) explained the sources of reference used to assess both the physical components of buildings and landscaping.

Table 3. 7

Reference Sources for Document Analysis Techniques

REFERENCE SOURCE FOR DOCUMENT ANALYSIS TECHNIQUES		
Components	Information sources	Document type
History Conservation approach Urban Structure Building components Landscape components	Print Newspaper, magazine, tabloid, book, newsletter, newsletter, treatise	Older images Photo map Post card Painting Sketch City Morphology plan History of morphology Data/Documents Archive Museum Data/Documents Government News Iternet
	MEDIA ELECTRONICS Internet, television, radio	
	OFFICIAL ISSUANCE OF GOVERNMENT Majlis Daerah Batu Gajah. Batu Gajah Land and district office Batu Gajah Public Works Department	

	OTHER SOURCES JPBD Perak Heritage Society Areca Books National Archives of Malaysia State Heritage Department National Library of Malaysia	

3.9 Focus Group Discussion Techniques

The focus techniques that involve professionals in the related field are one of the data collection techniques for qualitative analysis in urban environment studies by past researchers such as Samadi & Yunus (2018); Mcandrews et al. (2006); Granie (2013); Latip (22011) Kingsburyet al. (2011) and McCormack et al. (2010). According to Mai (2008), these professionals are respondents who have vast knowledge in things. They are able to help researchers gain relevant information with the objectives of the study. This technique enables researchers to gain deeper feedback on each element that has been manifested in Chapter 5 to enrich and streamline the results.

3.9.1 Data Collection Methods

The selection of qualified and experienced respondents in a field is very important to achieve the study goal (Morgan 1996). In This study, the respondents were quite limited since the study area namely Pekan Papan is only a small district under the supervision of Batu Gajah Municipal Council Therefore, the experts who can help to ensure the discussion of the focus group is a combination of seven experienced staff from UiTM Perak, UKM, Plan Malaysia and Papan Heritage Society. The selection criteria were based on their knowledge and expertise in urban design, conservation and their familiarity of Pekan Papan.

According to Greenbaum (1998), the presence of members of the group from various sectors but has the same background (*homogeneous group*) or members with similar areas of expertise and Experience in the study presented to contribute to the highest quality of inputs. The opinion was supported by Knodel (1984) and Krueger (2014), which was an emphasis between members in terms of work to facilitate

communication with each other and launched a discussion session. Knodel stressed that this discussion becomes a one-to-share information sharing to provide value added to the study results

3.9.2 Sample Size and Group

According to Morgan (1988), the sample size of this technique must be more than one, but two members are better where both of them have similar fields of expertise. The most frequently used Sample size is between 6 to 10 people where every member of the group has the opportunity to give views from their perspective (Morgan 1988; Krueger 2014; Greenbaum 1998; Knodel 1984). For this study, the sample size is 7 respondents based on three objectives, namely RO1, RO2 and RO3. Each of members were chosen according to the respondents' choice so that each respondent feels comfortable with a study material based on their own interests, tendency and skills. This factor is important so that discussion sessions are well-conducted in contributing to good results. Table 3.8 shows respondent 's profile and eligibility according to the group.

Table 3.8

Respondents Of Profile for Focus Group Discussion Techniques

Code	Collection	Agency	Experience	Area Expertise
(appearance aspects)				
LA - 1	Dr Suriati Ahmad	UiTM Perak	11	Cultural Landscape and Tin mining.
LA - 2	Dr Afzanizam Muhammad	UiTM Perak	8	Vernacular Architecture & Heritage
LA - 3	Dr Nor Mazlan Yunus	Plan Malaysia	9	Heritage Management Plan

LA - 4	Ar Dr Noraziah Mohammad	UKM	15	Architecture
LA - 5	Dr Mohd Iskandar Abd Malek	UKM	6	Architecture/ Heritage
LA - 6	Sr Dr Suhana Johar	UKM	7	Building Surveyor
LA 7	Mr Jacky Chew	PHG	15	Coordinator Tin mining gallery/ Director Papan Herritage Group.

3.9.3 Data Collection Methods

This focus group discussion session is divided into three stages i.e. pre-discussion sessions, actual discussion sessions and after discussion sessions. Pre-discussion sessions are at the Dewan Orang Ramai Papan before the actual discussion session. During a pre-discussion session, a presentation to Papan local community and site visit was held as a briefing on the of discussion with all respondents led by three researchers from Universiti Kebangsaan Malaysia (UKM). A visit to Pekan Papan was also conducted after a brief briefing to obtain a clearer picture of the subject to be discussed during the actual discussion session. During a pre-discussion and visit session, all respondents were required to identify all elements intended that all respondents take note of all elements and be able to make the overall summary in a collective basis at the end of the discussion.

Discussion Sessions were held on the evening session after pre-discussion so that the respondent's memory remains fresh. Seven respondents were divided into discussion groups based on the background of education, employment and mutual agreement with members of the group. Three respondents with architectural background, three respondents have experienced work in Pekan Papan, 1 respondent has knowledge on governance conservation procedure, and 1 respondent is representative from Papan community. The discussion was related on the validation of the method of findings in Chapter 5 (RO1) and Appropriate conservation strategies for

Pekan Papan in Chapter 6 (RO2) The Sessions were held in the discussion room of Seri Iskandar Hotel where the table is arranged in ' U ' form to facilitate the researchers facilitating both the group on the left and the right. The Power point slide show displays a map of study areas, and related photographs to be screened throughout the session to facilitate the respondent to make reference.

Discussion between the group runs simultaneously and is headed by a representative who is regarded as the most experienced member. The study was further smoother as the research material was discussed during the pre-discussion session. After Inter-group discussion sessions, researchers have led a final session where both the findings of discussion have been combined and discussed simultaneously. This is aimed at which data validation process was made where all respondents take note of each element. The session was also aimed at obtaining mutual consent to a proposed conservation strategy for Pekan Papan.

3.10 Data Reliability and Authenticity

In a particular study, authenticity and reliability of the data recorded are important. According to Yin (1994), the validity of the data is very important as it helps to verify the relationship and relevance between the cause and consequence where a finding appears to be referred to and is related to others while reliability is intended to minimize the error and bias element and often refers to the quality of obtaining the same result results although operations and tests are carried out over time. These two aspects also refer to specific technical abilities and equipment to gauge and evaluate what has been in design based on the theoretical framework and the objectives of the study (Harun 2012; Kumar 2009).

In order to ensure the findings and results of the study are authentic and reliable, two approaches have been established in this study (i) The Triangulation approach of various data in previous researchers is of the view that research using various data collection techniques can help increase the validity and reliability of data/findings of study (Harun 2011, Shamsuddin 2011) is of the view that there is no complete method of study. This approach helped neutralize the weaknesses of data by leveraging on other data strength and reducing the chances of a wrong/confused discovery. When all research techniques focus on the objectives and scope of the study, it can reduce the error and the data that is biased (W Ismail 2005). Hence, the triangulation analysis of

the various sources will result in a valid study finding and can be confident in believing data review from observation techniques by walk-by observation, which is self-administered techniques by researchers, able to ensure authenticity and reliability of revenue Study (Jaafar 2014; Abbaszadeh 2011; Mehta 2006).

3.11 Summary

In the scope of the same study. This study used Qualitative analysis (descriptive) which involved data collection and data analysis in a study. This approach is chosen as it helps to offset the weakness and strength of research data and to enrich the data of research. Based on the theoretical framework of research, the strategies of urban conservation in Pekan Papan could be achieved by the finding of the legibility of physical character and its relationship to its cultural heritage value. This could be achieved from the detailed analysis of the cultural landscape, urban structure and architectural features which are the main physical components in term of appearances and functions. To evaluate and verify the matter, case studies are selected as research strategies. It is the best strategy for this case study where researchers will obtain detailed information on the area zone as an urban conservation strategy,

The five techniques of in-depth analysis have been applied i.e. In depth interview, observation, historical document analysis, literature review and Focus group discussion. This Data is detailed where the reviewer can find out ‘why’ and ‘whether' the physical element contributes to the character of the town have been quantitatively analyzed and serve as a supporter of qualitative Data. All data were analyzed thematically and subsequently recorded in accordance with the concept or theme that has been identified. Comparative data have been made based on feedback from each respondent to determine the data pattern. The pattern of the data was compared with other techniques to assess its validity. Next, qualitative data have been analyzed simultaneously before the results are formulated and the data were validated through the focus group technique. The results of the discussion have formed an understanding which contributes to the Urban conservation strategies for Pekan Papan.

CHAPTER 4
CASE STUDY- PEKAN PAPAN,PERAK

4.1 Introduction

The formation of tin mining towns in Perak have contributed to pioneering the economic and transportation development in Malaysia from its tin mining activities which started in 18th centuries. The immigrant of Chinese to work in tin mine have derived to the openings of tin mining towns in Perak (Esmawee 2008). The formation of the tin mining towns could be reviewed from the history of the tin mining in Malaysia where In 1848 tin was discovered in Larut district 1850s which formed towns such as Taiping and Larut Matang when the tin rush in Larut happened 1861 where tremendous rise of the international price of tin which derived Chinese immigrants to open a smaller tin mines in Kinta District. (fig 4.1) New tin mining towns such as Jelentoh near Gopeng was opened in 1877 and Raja Asal from Mandailing was permitted to develop the Papan mines in 1880

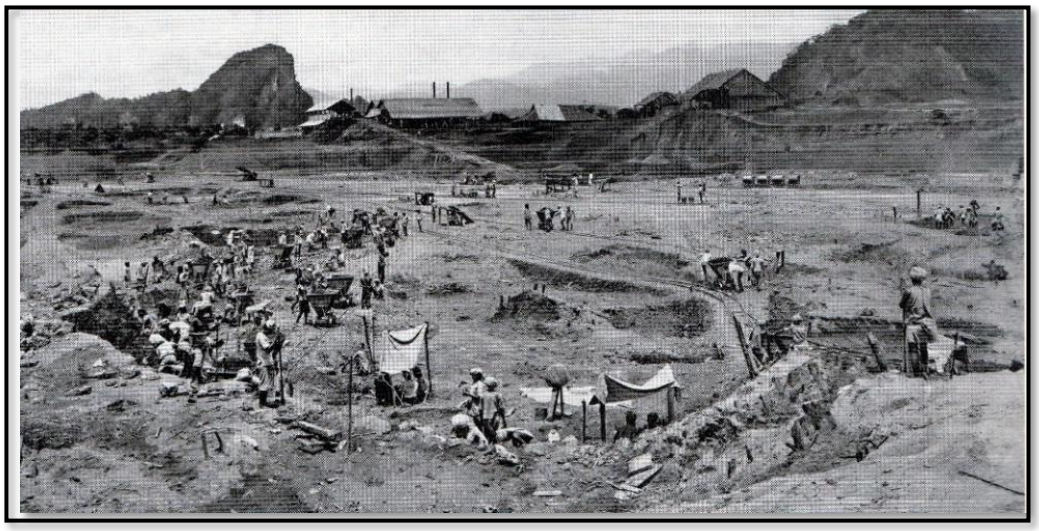


Figure 4.1 Tin Mines in Lembah Kinta, Perak in 18th Century. Source: (Lubis 2013)

The decline of tin mining operation has linked to the collapse of world tin market in 1985 which led to the abandonment of mine sites and its township in Perak. Old Towns such as Papan, Gopeng, Papan, Temoh, Lahat, Sungai Raia, Tanjung Tualang, Pusing, Kota Bharu and Siputeh (fig 4.2) were amongst the former tin mining towns

which were left in abandonment and dilapidated conditions due to the development of new township and residential area.



Figure 4.2 Old Town in Sungai Raia, Ipoh, Perak Among The Former Tin Mining Town in Lembah Kinta Which Still Exist Until Today but Left in Abandonment. Source: Perak Heritage Society

4.2 Pekan Papan

Pekan Papan was chosen as the study area of this research due to its entity as the first centre for tin mining in Lembah Kinta. It is located next to Batu Gajah and Pusing (fig 4.3 & 4.4) and once the most developed tin mining town in Perak during British Colonial period. The town consists of varieties of built forms such as houses, school, houses of worships, public buildings, entertainment premises and recreational areas as a result of multi-cultural development. This could be seen from the existing built forms such as shop houses and dwellings which were occupied by the Chinese and influenced with Malaysian Chinese and Colonial Architecture (fig 4.5). The traditional Malay Architecture could be seen from the essence of Malay community area such as Rumah Besar Raja Billah, Masjid Papan and other Malay houses. These buildings were combined to form Pekan Papan as a mix culture town and as part of Malaysian architectural identity



Figure 4.3 Main Signage to Pekan Papan, Perak



Figure 4.4 Location Map of Pekan Papan. Source: Papan Heritage Society



Figure 4.5 Aerial View Shows the Layout of Pekan Papan. The Pre-War Shophouses Located in the Middle of Main Road and Separated into Two Parts, the Mandailing Village at Right and Kampung Baru Papan at Left.

The settlement of Pekan Papan started as a timber town in the 1840s.The name of Papan itself came from existing Chengal Wood which was available at Ulu Johan Jungle. The local Malays hat cut down chengal trees since 1700. Upon the arrival of the Chinese, Chengal was cut and processed in factories belonging to them. Other than the word 'Papan' in Malay which refers to the initial function of the town, the word 'Ka'Pan which means quality wood in Cantonese dialect also points to the location of the wood's production (Perak Heritage Society). Papan's history is also enriched with the legacies of historical figures and as evidence of the mix culture population in the development of the earliest town in Malaysia. There were the Mandailing nobilities, Raja Asal and his successors Raja Billah and Raja Ya'cub. The historically significant of the political issues in the Royal Kingdom of Perak started where the political domain was under the rule of Sultan Ismail. The implication of the murder of J.W.W Birch, British has replaced him with Raja Abdullah. In pursuit of the conspirators, Frank Swettenham enlisted the help of Raja Asal from Mandailing to avoid the Dutch Administration and rewarded him with the sole right to mine tin which became the richest tin-mines in the

Malay Peninsula. The role of Malay Ruler later taken by Raja Billah after the death of Raja Asal (Lubis 2013).

After tin production from the Larut District declined, Kinta Valley became the new focus of miners and investors. In Pekan Papan, the exploitation of this natural resource has shown the mutual understanding between Hakka Chinese and Mandailing working together in harmony which developed Pekan Papan as one of the richest and successful tin-mining towns in the Kinta Valley. In the late nineteenth century, the main street had over 100 shop houses in various styles and tastes, single storey house (Fig 4. 6 & 4.7), public facilities such as markets, theatre, dispensary, tin Melter and court room were established under the development of Papan. The earliest prison in Perak was built in Pekan Papan but closed in 1925 when it lost its significance. The trace of Mandailing community could be seen from the existence of the Raja Billah's Rumah Besar together with the adjoining Masjid Papan and some traditional Malay houses which still exist (fig 4.8).

Pekan Papan today is a small town where most of the people who live there are local resident who work as shopkeepers, farmers, chit- blind makers and a few tin-miners. In the past thirty years, as the population declined, buildings were neglected. They fell into ruin or were destroyed for building materials. However, some of its heritage has survived within a village of devoted local people continue to live in buildings which were left abandon and in dilapidated conditions.



Figure 4.6 The Old Shophouses in Pekan Papan. Most of the Buildings Were Abandoned but Some are Still Occupied.



Figure 4.7 Houses of Local Residents at Kampung Baru Papan.



Figure 4.8 Entrance to Kampung Mandailing. at the Left is a Wall Surrounding Rumah Besar Raja Billah and the Right Side are The Site Which once a Malay Village Area.

Pekan Papan was the Earliest tin mining Town in Lembah Kinta which built in 1840 (Khoo Salma and Lubis 2005). After the increment of demand at Larut Matang tin mining area, Malay rulers start to open tin mining area at Lembah Kinta. Based on J.W.W Birch written record, the first tin mine in Pekan Papan was operated by Sultan Ismail who was 25th Sultan of Perak in the middle of the 19th century. Birch observed that Sultan Ismail often commutes between his place in Blanja to Pengkalan Pegoh. After the Perak war came to end on 1875, Sultan Ismail was exiled, causing Gopeng, Pekan Papan, Tanjong Tualang and Blanja who is under his administration, to fall into British's hand. Consequently, the mines in Pekan Papan were handed over to Raja Asal by Frank Swettenham, 2nd British resident in Perak as an appreciation gesture in return for Raja Asal's assistant for defeating Sultan Ismail. Acting on the advice from British resident, Sultan Idris (28th Sultan Perak) had appointed Raja Asal as the tax collector for Papan to Sungai Johan. He was also given the approval to start a settlement for Mandailing settlement. As a result, more mines were opened. This mining area was given a recognition by Cecil Clement Smith, the governor of the Straits settlements, after his visit in 1889. Next was the mine belongs to Johan tin dredging which was situated 1 mile to the north of Pekan Papan. There was also the open cast mining owned by Tong Yow kongsi, which was the biggest open cast mine in Pekan Papan. Perak Tin Mining and Smelting Co Ltd was the main European mining company in Pekan Papan. Its mine was in front of Pekan Papan with 1000 acre of mining areas. Among other mining companies which have operated in Pekan Papan were kledang Prospecting Syndicate (1022) which owned the last underground mines in Papan. (Source Perak Tin Museum)

Pekan Papan was also the first territory of the Mandailing nobilities in Perak. (Lubis 2000) after it was given to Raja Asal in 1877 by Frank Swettenham as return for assistance in Perak war. Raja Asal was a prince from Mandailing, Sumatra, who was the leader among Malay- Mandailing community that migrated to Malay Peninsular after the Padri War (1821-1837). Raja Asal and his followers moved to Pekan Papan from Klang through Hulu Slim, Durian Sebatang and later travelled upstream to Kinta River. Once there, the followers established new settlement and sustained their lives by planting paddy, farming and tin mining as economic activities. Raja Asal administration was short- lived due to his demise in 1877. After Raja Asal, Pekan Papan was administered by Raja Billah in 1882. Some of Raja Billah's responsibilities as a leader were to enforce the rules and legislation as well as to collect taxes on local production.

As a Penghulu, he also acted as source of reference and information on the people daily' s activities, to record births and death as well as people transferring matters, to solve problems and to ensure peaceful among the community. Raja Billah served as 'Penghulu' for 27 years and retired on January 31,1909 at the age of 59 and passed away in 1911. His ancestor, Raja Yaakob takes the role as penghulu and later Raja Shahariman from 1932 to 1942 (ref fig 4.9). Mandailing generation from Papan still exist until today and active in their community gathering for Mandailing tribes (Lubis 2003).

Pekan Papan also an essence of Mix culture development between Mandailing and Chinese. Other than the involvement of the Mandailing, tin mining was also actively operated by the Chinese immigrants, Chinese miners in Pekan Papan which consist of Hakka clan led by Kha Ah Ngoh who was the leader of a triad called Ghee Hin from Selangor, who worked and migrated together with Raja Asal .The Chinese then opened a barrack for their accommodation together with a commercial area which consist of shops and other activities for leisure and local community activities (ref fig 4.10). The experience could be referred based on the book written by Ho Thean Fook, "God of the earth" which tell his experience as a kid who migrate to Pekan Papan The town was the earliest tin mining towns which have been facilitate with facilities provided by British such as prison, railway station, tin melter, court room, markets and theatres (Dolbani, 2014). This is based on the early maps by Ho Thean Fook and pictures which shows the early development of Papan. A police station in Papan was built and operated in 1887. The needs for a police station were critical as a result of the triad's activities (fig 4.11). In 1888, Pekan Papan had a main road with a width of 70 feet which run along 146nos of housing units and in 1896 it was accommodate with a drainage system. With economic growth, Pekan Papan have embraced the British town planning system and in 1892 (fig 4.12), Pekan Papan had grown almost similar size with Ipoh, Gopeng, Lahat and Batu Gajah. In 1903, a prison complete with clinic was developed of the hill close to Papan. Prisoners came from Batu Gajah prison according to the exchange table given from time to time. The prison was closed in 1925 when Papan lost its significance. (Perak Heritage Society)

Another legacy of Pekan Papan historical significance is of Dr A. C. Kathiagasu and his wife, Sybil (fig 4.13). With the outbreak of World War 2, Dr Kathiagasu, a prominent obstetrician, and his wife moved to Pekan Papan to avoid the bombing in Ipoh. They have provided medical services to the freedom fighters of the Malayan

People's Anti-Japanese Army (MPAJA) and Force 136 operatives who hid in the hills nearby. After twenty months, their service has been discovered by the Japanese and they were arrested, tortured and jailed. For their heroism, both Sybil and Dr Kathiagasu were honoured after the war. This clinic and Shophouses in Pekan Papan remains as monument to their courage (Perak Heritage Society).



Figure 4.9 Raja Yaacob and the Mandailing Tribes Gathering at Rumah Besar Raja Billah Source: Lubis 2013



Figure 4.10 Old Picture Shows Buildings in Pekan Papan in 18th Century.Source: Ho Thean Fook

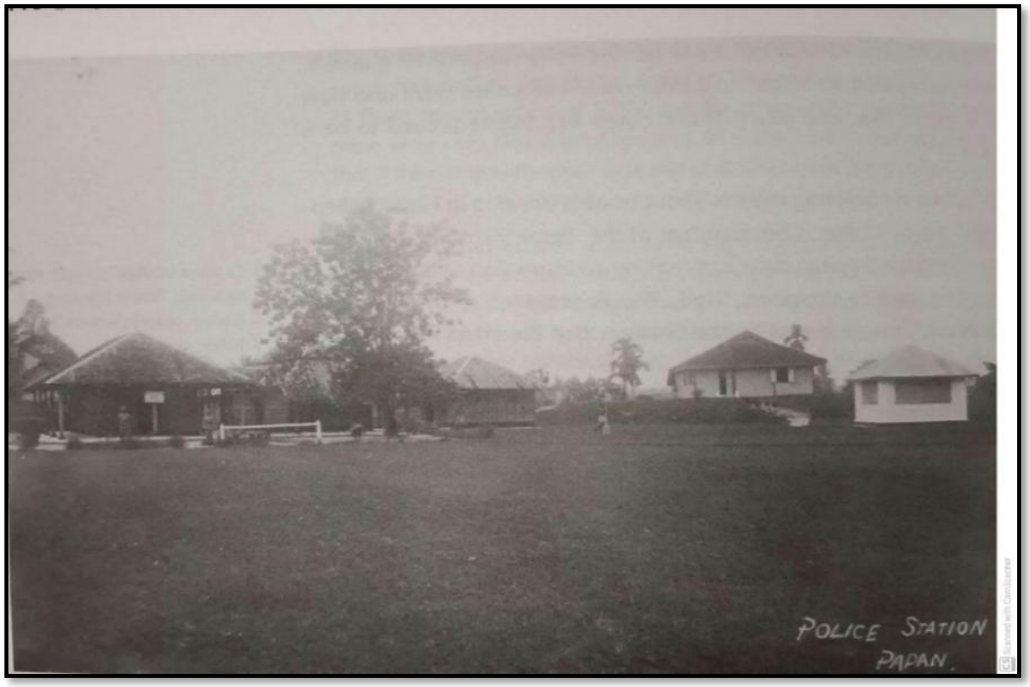


Figure 4.11 Old Photograph Shows the Police Station in Pekan Papan in 1885 Which No Longer Exist Source: Ho Thean Fook

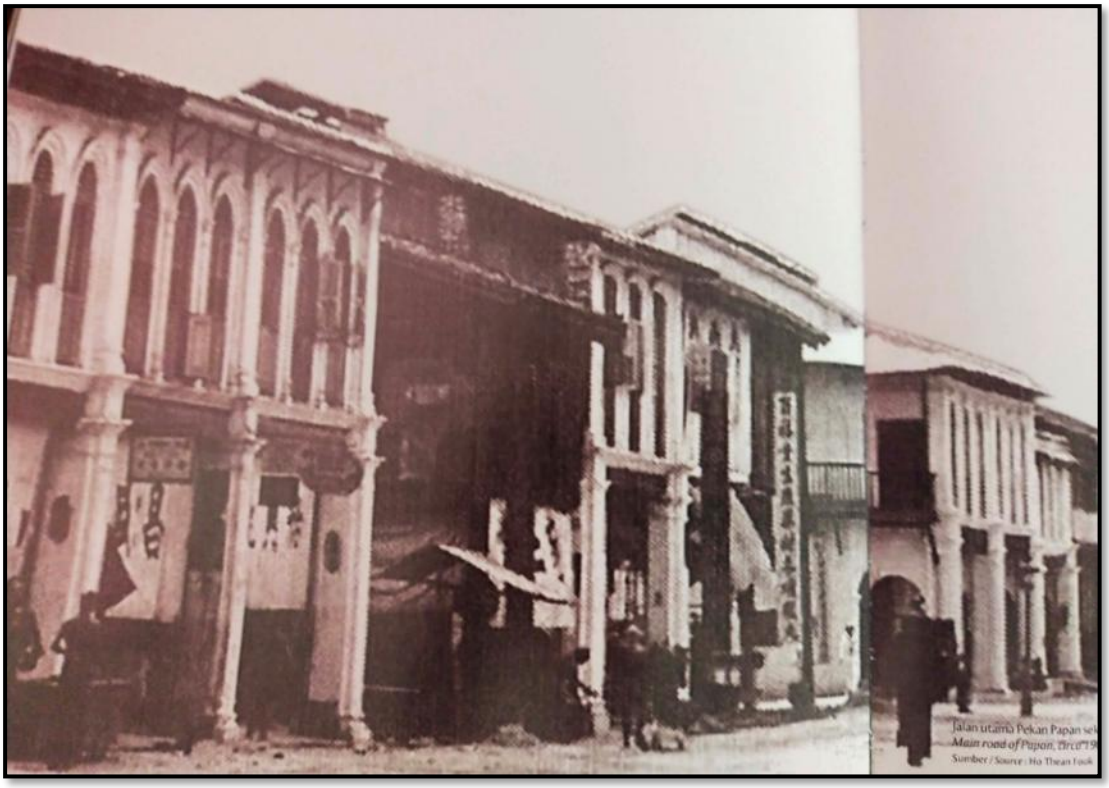


Figure 4.12 Old Shophouses on the Main Road of Pekan in 1888 which Still Exist Until Today. Source: Perak Heritage Society



Figure 4.13 Dr Sybil Kathiagasu and His Wife, Sybil. Source: Perak Heritage Society

4.3 Urban Morphology in Pekan Papan

Pekan Papan ranged from the junction to Pusing town towards a road across Sungai Johan. Previously there was a Sikh Settlement (no longer exist) and direct to Kong Mui Village to the north and which is around 1.3 km in distance. In 1890, Pekan Papan's boarder was expanded up to 200 meters to the east from Kun Yan Mui Temple and 200 meters to the northeast from Chinese Theatre to the Mandailing areas.

The town centre was only 1 Km in area. Besides mining, Kong Mui Village was a former mining land which were used as recreational activities by Europeans. Papan town is nestled between Gunung Hijau and Kledang forest reserve on the north and East. These forests were once rich with cengal wood which make Papan as a main producer in Kinta District. On the foothill of Gunung Hijau, there was a valley which rich with tin and most of the mines were located on the south-west side of the town and some of them were in the eastern side heading north. Sungai Johan which flowed from North to South was the main source of water, as well as the main means of transportation to trade Cengal and Tin.

In the early years, due to the width and depth of Sungai Johan, played an important role to transport wood and tin into the market which were carried using small ships and boats to a river in Batu Gajah. The supply of wood to construct buildings in Pekan Papan such as Kun Yan Min temple were imported from China and transported on a ship from Perak River in Teluk Intan, travelling upstream to Sungai Kinta and cruised through Sungai Johan before reached Pekan Papan. Due to the opening of tin mines, and the operation technique such as hydraulic and water pumps which requires huge volume of water, Sungai Johan has become shallow which it was the only source of water for Papan and Pusing. Drainage was built to channel water from Sungai Johan to the mines which caused decrement of water volume. At the same time, water from Sungai Johan was fed in the drainage system in front of shop houses along the main road in Pekan Papan.

The increment of population caused the crucial needs of water supply which caused the construction of reservoir on the top of the hill for a more systematic water supply for the town. To cope with socioeconomic growth and the needs of transportation, Pekan Papan received the first 4 miles paved road in 1881 which linked to another town such as Pusing and Batu Gajah. The paved road linked as a main road of town which used as a mean of transportation. Pekan Papan also was one of the earlier

stops for the railway track in Kinta Valley which linked Ipoh and Tronoh which completed in 1908.This station linked with another town such as Menglembu, Lahat, Pusing and Siputeh. The service was terminated after mining activities ceased in the 80's. Papan town also have a systematic stable with cement floor, tile roof, drainage and good sanitary system which was built to sustain horse cart services which were the public transportation for medium distance in the mid 1890's. British administration provided the fare table for horse cart services which linked Papan to other nearby towns such as Gopeng and Batu Gajah (fig 4.14).

Source: Perak Heritage Society



Figure 4.14 Urban Morphology of Pekan Plan. Source: Wan Riena 2024

4.4 Layout of Pekan Papan

Pekan Papan started with a formation of Malay village which thrived on logging cengal activities. After discovery of tin mines, and migration of Chinese who work as labour, Papan town was opened by British and became one of the biggest towns in Kinta Valley. Papan's layout is almost similar to other early tin mining towns which was linear with rows of shophouses. From the map recorded by Ho Then Fook in 1900 there are almost 100 units of shophouses along the main road of Papan. (Fig 4.15). On the right side of main road, there was a Mandailing Village, and a lane was built in 1900 which

direct to Kampung Baru Papan on the left side of Town area. Kampung Baru Papan was built to support the overwhelming number of populations in the town area, giving a shift in the function of the Chinese houses which in general make Papan town was sandwiched between Malay Mandailing on the right side and Chinese residential area on the left. At the same time, it housed Kongsi (house for main workers) which located around the mines.

Other than shophouses and residential, Pekan Papan also have been provided with public facilities which built by British and residents. The first school in Pekan Papan was Papan Hwa Chao Chinese School which was built in 1911. Other than main building, this school was also located at several business premises and was equipped with its own kindergarten. In 1925, this school was given recognition by the British through Inspector of School. Pekan Papan was also known for its private social clubs which became the meeting points for many businessman and miners. Mining system was a based on certain community and groups including the triads which spurred the growth of associates and clubs in Pekan Papan. In 1898 a double storey theatre was built which occupied with stage and audience seats. Public Facilities which built by British mostly focused on the safety of public. A police station was built and began its operation in 1887. The needs for police station were critical as a result of the triad's activities, in 1903, a prison was built on the top of the hill close to Papan. Prisoners came from Batu Gajah prison according to their exchange table and its development was related to the activities at quarries around Papan. The prison was closed in 1925 when it lost its significant.

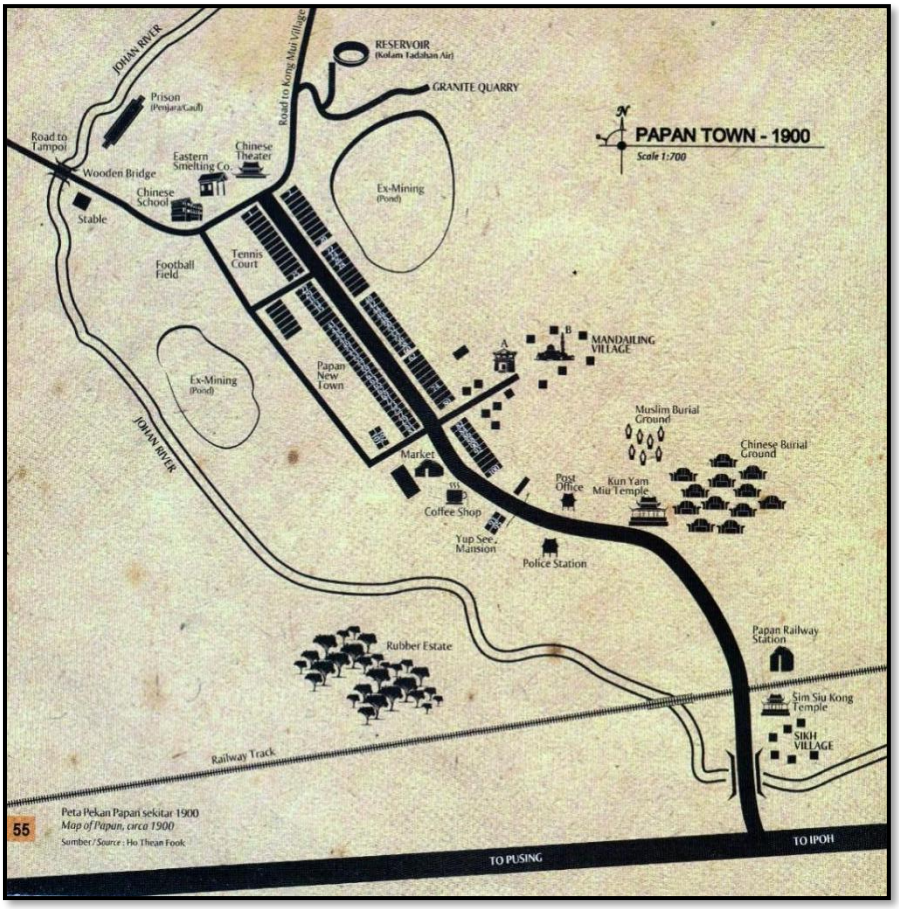


Figure 4.15 Map of Papan (1900) Shows the Town Consist of Three Types of Development: Old Shophouses, Kampung Mandailing and Public Facilities Provided By British. (Map Source: Ho Thean Fook)

4.5 Physical Outlook of Pekan Papan in Present

In 1888, Papan had a main road with a width of 21 meter which locate along 146 of buildings used as shophouses. All these buildings were represented by four brick buildings, 80 buildings erected by bamboo with tiled roof and 50 bamboo houses with thatched roof. However, in 1896 Pekan Papan reached the height of its glory with the production of tin and an increment in property including clean and systematic town system such as road and drainage. In 1892, shophouses were built using bricks and growth almost the size of Ipoh, Gopeng, and Batu Gajah embracing the British town planning system where local leaders were appointed as committee members with Kinta sanitary Board. After 1921, due to insurgency and the falls of mining price, Papan started to experience an impending fall. The Chinese theatre and shop houses were

abandoned, and the prison was closed in 1925. Post office and police station were reduced in size and now they are no longer exist. The Anglo Chinese club which earlier had members among Europeans, was then patronne by the Chinese Patron. The Malay population which once a centre of attraction for Mandailing community in term of economy and religion activities has decreased in population where most of the Malay population have moved out and the existing building such as Rumah Besar Raja Billah and Masjid Papan left in abandonment condition. Today, Papan is deteriorating fast as more premises are empty where 40% of all 146 shophouses were ruined and completely abandon which 88 units are still in remain with dilapidated condition (Fig 4.16). (Source: Papan Heritage Society)

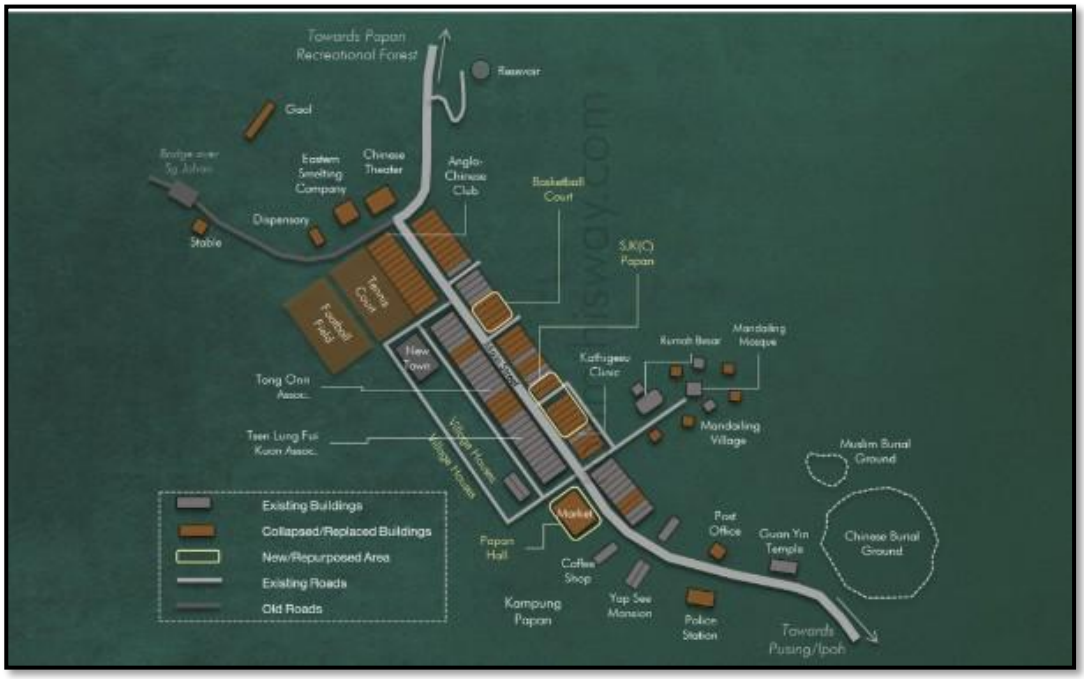


Figure 4.16 Map of Pekan Papan in Shows That Most of the Infrastructure Provided by British have been Demolished. Some of the Old Shophouses Still Remain and in Kampung Melayu Mendailing, Only Rumah Besar Raja Billah and Papan Mosque Still Remain. (Map Source: JPBD)

4.6 Population in Papan

The population in Pekan Papan also decreased where 500 people were recorded in 1888. The number have increased throughout the years (table 4.1) where in 1892, the population in Papan was 1523 people and by 1901 this number has increased to 2441 and remained until 1980 where 3000 people was recorded. in 1980. Due to the drop of world Tin price, most of the mining areas have been closed and contribute to the number of populations in Papan. The Mandailing Community moved to Chemor and Batu Gajah and in 2024 only 150 people was recorded where mostly elderly people.

Table 4.1

Tabulation of Population in Pekan Papan

Year	Population
1883	500
1892	1523
1901	2441
1920	1285
1960	3000
1980	3000
1990	2000
2020	200
2022	150
2024	150

Source: Papan Heritage Society

4.7 Building Typology in Pekan Papan

There are 5 types of building typology which could be found in Pekan Papan which mostly based on the historically significant and development among communities (table 4.2). The fact that Pekan Papan had established itself as a developed town before other towns such as Ipoh on the influences of technology and building materials around the town. The zoning of the town development could be divided from the date when the building was built starting from 18th century where Mandailing opened the tin mine in Pekan Papan and built a Malay Community. The Chinese workers soon came as workers and built shophouses under the administration of British

Table 4.2

Building Character in Pekan Papan

Type	Built Form	Architecture Style
1	PRE WAR SHOP HOUSES (BUILT 1888)  ROW UNIT	Strait Eclectic style Combination Chinese, Malay & Colonial Decoration at windows, grill, fascia board and pillars Wide opening for ventilation Material used stone, granite & lime
	 SINGLE UNIT	Strait Eclectic style Combination Chinese, Malay & Colonial Decoration at windows, grill, fascia board and pillars Wide opening for ventilation Material used stone, granite & lime
2	SINGLE UNIT BUILDINGS (BUILT 1890)  YIP SEI MANSION	Strait Eclectic style Combination Chinese, Malay & Colonial at roof Decoration at windows, grill, fascia board and pillars Wide opening for ventilation Material used stone, granite & lime
		Strait Eclectic style Colonial style Decoration at windows, grill, fascia board and pillars Wide opening for ventilation

	 HWA CHAO OLD SCHOOL  SYBIL KHATIAGASU GALLE	Material used stone, granite & lime Colonial style Decoration at windows, grill, fascia board and pillars Wide opening for ventilation Material used stone, granite & lime
3	**COMMUNITY BUILDING**  COFFEE SHOP (Built 1960)	- Simple timber construction - Single storey - Simple timber construction - Single storey

	 Community Hall (built 90s replace old market)	- Open planning - Built in 1980's - Normal brickwork construction - Simple post and beam design
	 SRJK Chinese Papan	Built 1847 renovate 1898 Chinese Architecture Carving, calligraphy,
	 Kun Yan Mui Temple	Typical Chinese theatre Performance stage Timber construction
	 Theatre	
4	KAMPUNG BARU PAPAN (built in 1960)	Simple timber construction Single storey Expose ceiling

		Open planning
	ROW HOUSES	Simple timber construction Single storey Expose ceiling Open planning
		
		
	SEMI DETACHED HOUSE	Simple timber construction Double storey Expose ceiling Open planning
		
	DOUBLE STOREY HOUSE	

5	KAMPUNG MANDAILING  RUMAH BESAR RAJA BILLAH (!896)	Typical Rumah Godang Administration building for Raja Bilah Gazette under JWN on 29/3/2012 Mandailing Architecture Combination Malay, Chinese and colonial Decoration at window, panel and papan cantik
	 RUMAH ASAL (built 1895)	Built for caretaker of Rumah Besar Raja Billah Typical Mandailing House design Timber construction
	 MASJID PAPAN (Built 1888)	Malay mosque design with bumbung limas Square plan with more than 4 support pillars Double tier roof
		Catered for Bilal of Masjid Papan Simple timber construction.



RUMAH BILAL (built 1900)

4.8 Pre-War Shop Houses

Papan had established itself before Ipoh where early shophouses were built with latest building technology and building materials in 18th century which was like the way shop houses were constructed in China. The foundation, pillars and granite were used for the floor. The design of the façade showed characteristics of shophouses from China with an opening on top for ventilation. There are 100 units of shophouses listed in Papan (fig 4.17- 4.21). From these, most of the shophouses still maintain its existing structure but yet abandoned and became the main attraction for people who came to visit Papan. Some of the buildings have undergone minor renovation especially at the front façade. The urban settlement still maintains with the 50 feet road separate the two blocks of the pre-war shophouses.

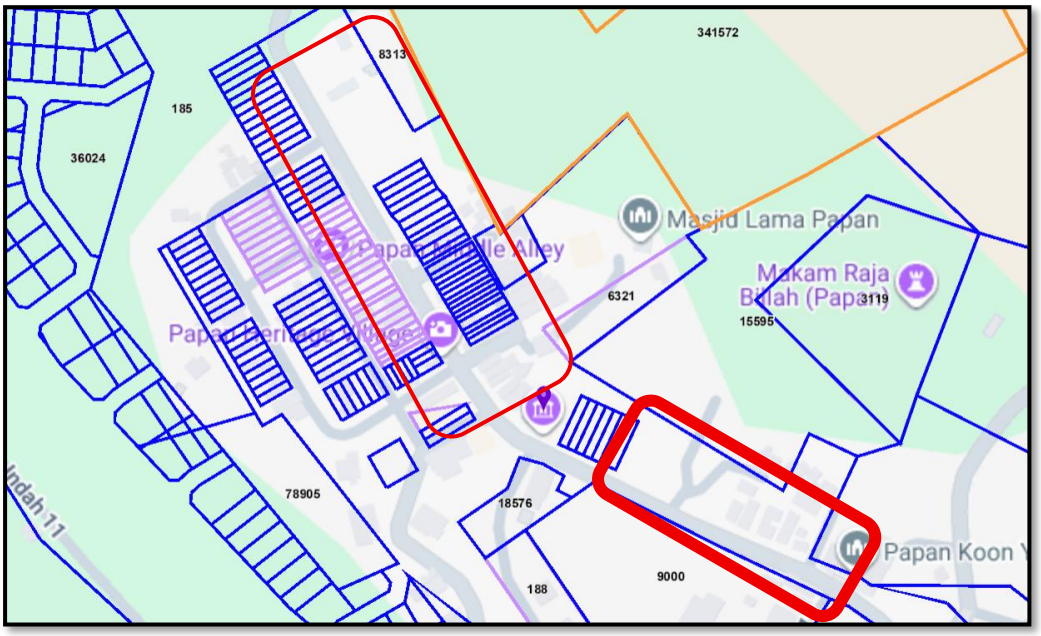


Figure 4.17 Layout of Pekan Papan and Area Where the Pre-War Shophouses Which Still Exist

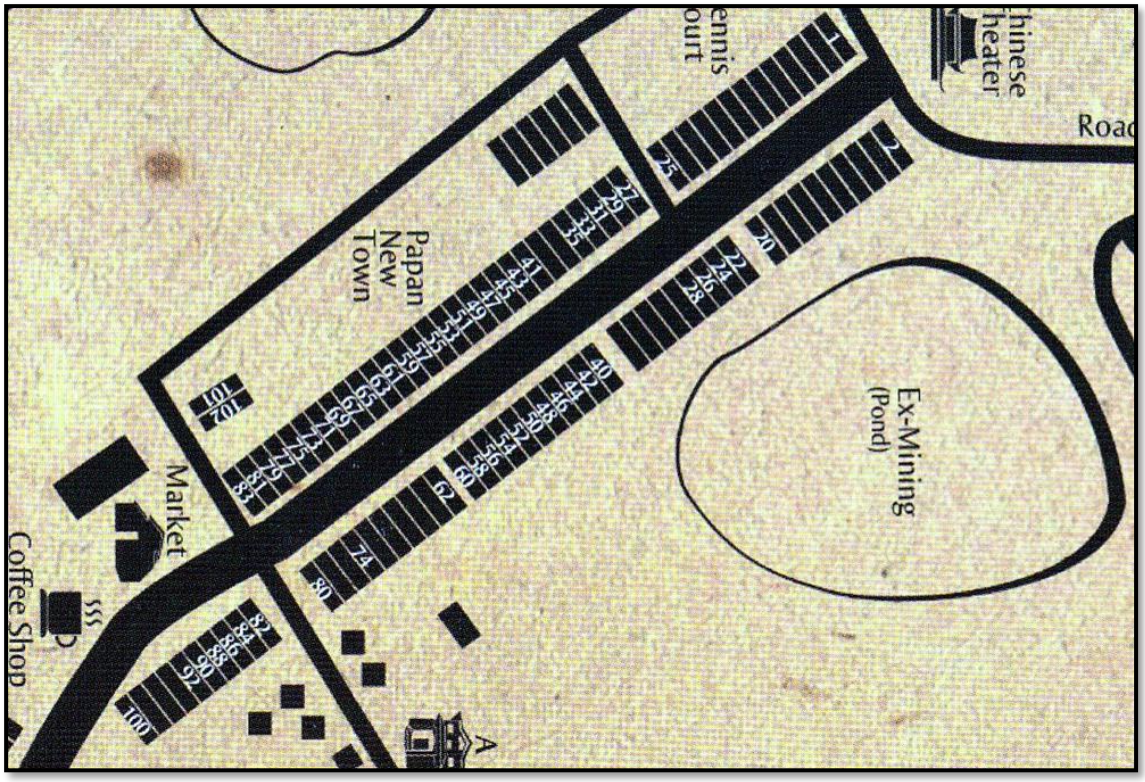


Figure 4.18 Layout of Shophouses in Pekan Papan in 18th Century Shows the Usage of Buildings on That Time. Shophouses Unit Lot 1-25 have been Demolished. The Only Remain are Shophouses Unit Lot 27-83 and Unit Lot 40-100. Unit 22,24,26,30,32,34,36 Have been Replaced with Basketball Court and Unit 40-60 have been Replaced with SRJK (Chinese) Papan.

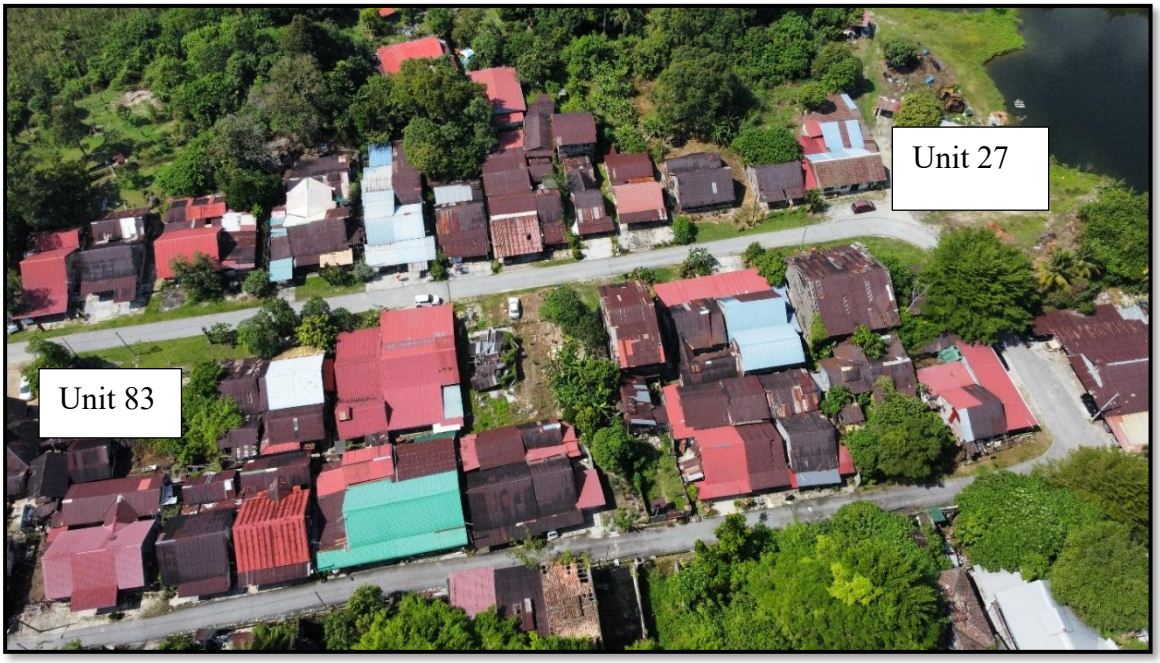


Figure 4.19 Aerial View of Pre-War Shophouses Unit 27-83 which Still Exist.



Figure 4.20 Aerial View of Pre-War Shop Houses Which Still Exist, Basketball Court And SRJK (Chinese Papan)



Figure 4.21 Aerial View of Pre-War Shop Houses at Pekan Papan

Table 4.3

Tabulation of Pre-War Shophouses Based on Historical Record and Which Still Exist in Present

Ref number	**Building type & function**	**Ownership**	**Current condition**
1	Anglo Chinese Club	Private	demolished
2-10	Brothers & Entertainment Premises	Private	Demolished
33	Yee Loke Club	Private	Abandon
27 & 53	Tung Onn Associate (Hakka Clan)		Abandon
38 & 40 Liquor Shop	Chinese School	Private	Abandon, replace with basketball court
47	Hoong Fat liquor shop	Private	Renovate & occupied
48-60	Residential	Private	Demolished and replace with SRJK Papan
49	Residential premises	Private	Renovate & occupied.
56	Electrical Pay shop	Private	Occupied but building in dilapidated condition
61	Coffee Shop	Private	Abandon
65	Tailor & Barber shop	Private	Abandon
67	Chinese Medical Hall	Private	Occupied as residential
69	Tsen Lung Association	Private	Occupied as residential
75	Residential (Later kindergarten)	Private	Occupied as residential
77	Coffee Shop	Private	Abandon
82-100	Shops	Private	Coffee shop and community centre.
83	Club House	Private	Papan Information Centre
101 & 102	Kindergarten/ School	Private	Abandon

Source: Author

4.8.1 Building Forms and Architectural Features

At the pre-war shop houses at Pekan Papan, seven types of facades have been identified where combination of Chinese, Colonial and Malay architecture have been found. There were more than 7 façades identified on shophouses in Pekan Papan. Chinese, Colonial and local design were combined, and the distinct elements could be seen on several elements such as windows, grill, air ventilation frame, fascia boards and pillars (fig 4.22-4.31). From the aspect of building layout, all premise shares the same concept of space. There were two to three rooms in the ground and first floor. The main characteristics of the Chinese shophouse was a courtyard which was also available in the layout of shop houses in Papan. The courtyard was located at the back where the toilet and bathroom were located. On the ground level there are five-foot way at the entrance, living area, two rooms at the middle and link to kitchen and courtyard where toilet and bathroom are located at the back area. The upper floor level had family area, two rooms with a balcony and these spaces were interconnected through a hanging walkway which resemble a small bridge (fig 4.32-4.35).



Figure 4.22 Façades Identified on Shophouses in Pekan Papan. Source: Lembaga Muzium Perak



Figure 4.23 Façade of Shophouses Lot 39-55



Figure 4.24 Façade of Shophouses Lot 69-71

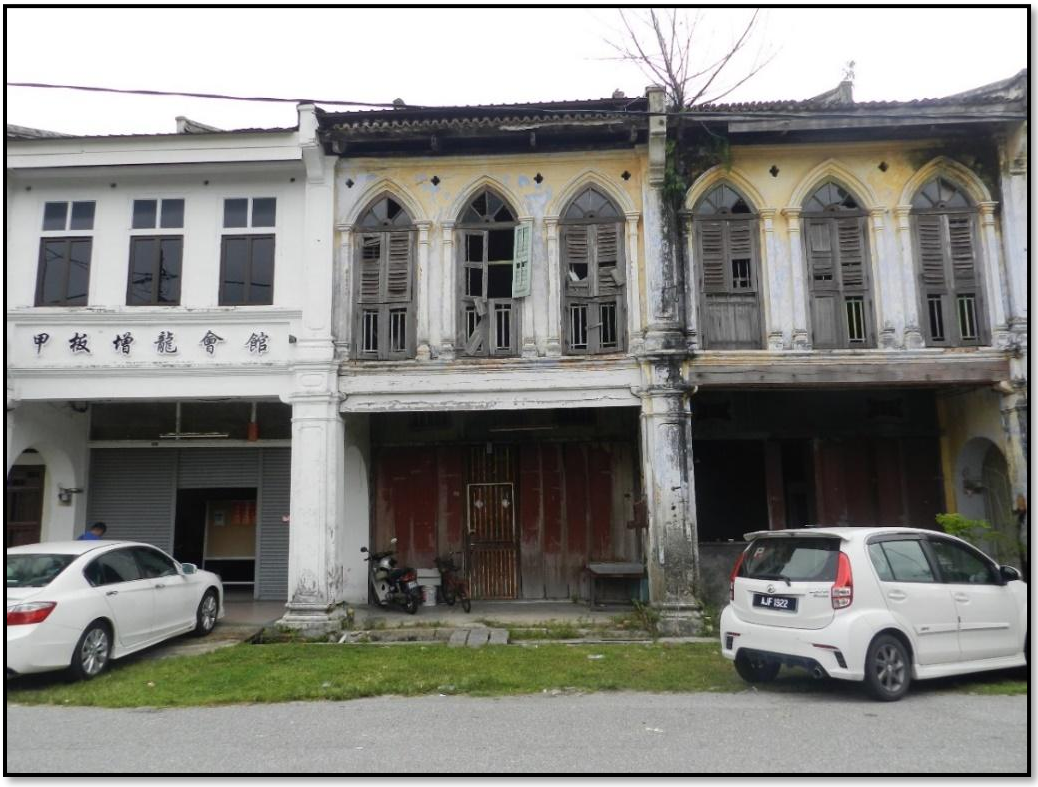


Figure 4.25 Façade of Shop Houses Lot 42-48



Figure 4.26 Façade of Shophouses Lot 73-83



Figure 4.27 Façade of Shophouses Lot 64-67



Figure 4.28 Façade of Shophouses Lot 69-71



Figure 4.29 Façade of Shophouses Lot 69-71



Figure 4.30 Façade of Shophouses Lot 74



Figure 4.31 Façade of Shophouse Lot 60

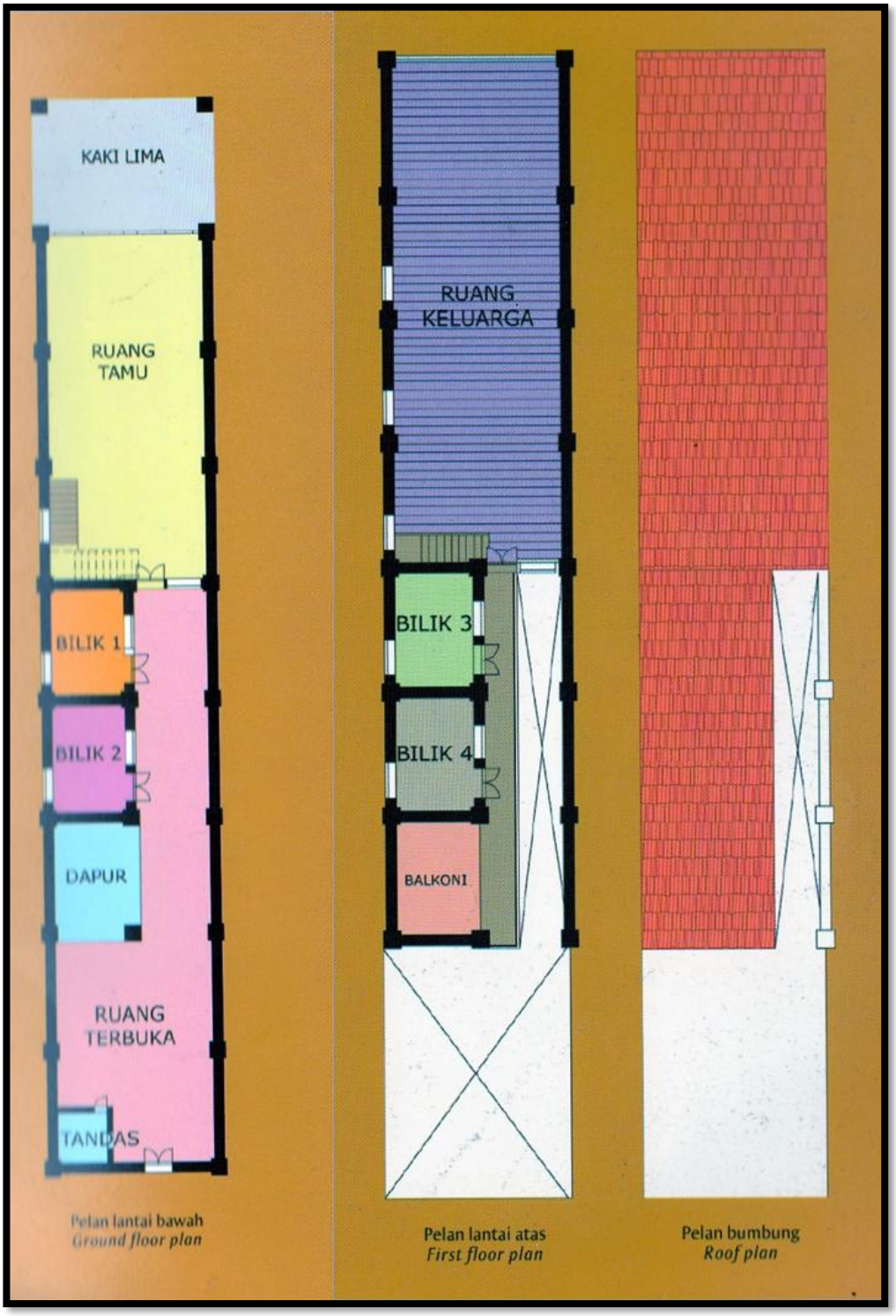


Figure 4.32 Typical Layout of Shophouses in Pekan Papan Source: Lembaga Muzium Perak



a b

c c d

Figure 4.33 Interior View of Shophouses Lot 61 Which Used as Coffee Shop and Abandon in Present. The Main Entrance (A), Courtyard (B), Window at Double Volume Connected to Balcony on The Upper Floor (C) and Kitchen at the Back Area. (D)

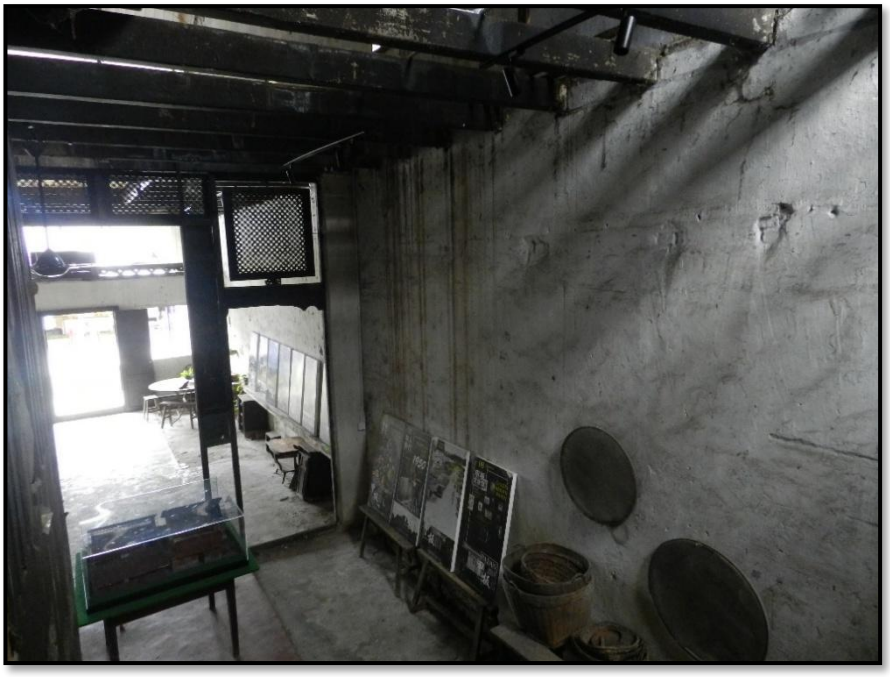


a b

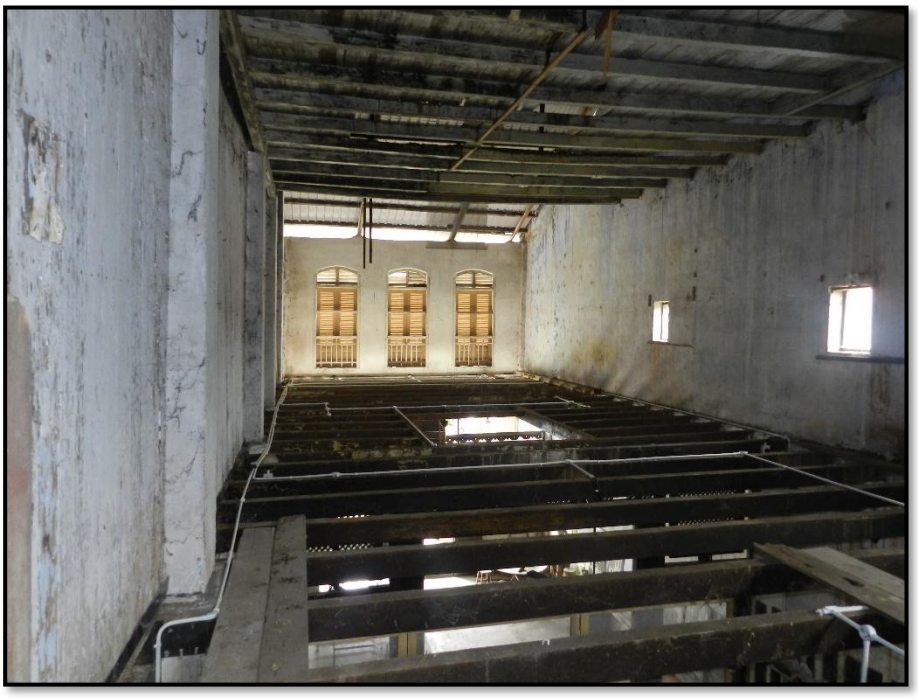


c

Figure 4.34 Interior View of Shophouses Lot 83 Which Have Been Used as Papan Information Centre. The Front Façade (A), 5-Foot Way (B) and (C)The Living Area



a



b

Figure 4.35 The Ground Floor Level Toward Courtyard Area (A) and Typical First Floor Area Where Family Area (B)

4.9 Kampung Mandailing

Malay Mandailing community lived in harmony and togetherness due to the concentration of power and influence pioneered by Raja Asal and this legacy followed by his son, Raja Billah. The first settlement built in Papan was the Malay Mandailing area which act as a ruler of Papan. Rumah Besar Raja Billah, Rumah Asal and Papan Mosque was built in 1887 to cater Mandailing population in Papan. The layout of Rumah Besar Raja Billah was built surrounded by gateway and Penghulu Office. Rumah Asal was built earlier for his family. Around Rumah Besar Raja Billah are Masjid Papan and Rumah Bilal which still exist while the family's house (Raja Kamariah and Raja Rabeah) house has been demolished. In the early 1900 there are more than 50 houses were located where Rumah Besar Raja Billah and Papan Mosque were built as landmark. Due to the insurgency and the drop of tin price, most of the Mandailing population have moved out to nearby kampung area. In present Rumah Besar Raja Billah, Rumah Asal, Masjid Papan and Rumah Bilal are the only building left in dilapidated condition while other buildings have been demolished (fig 4.36-4.38).

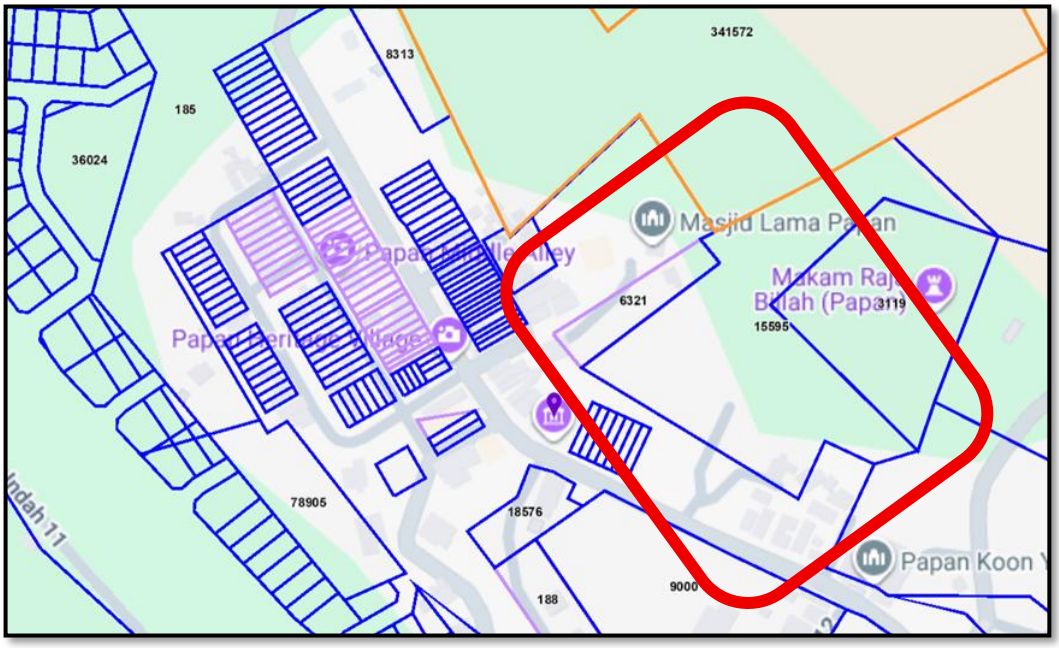


Figure 4.36 Location Plan Where Kampung Mandailing Located.



Figure 4.37 Aerial View Shows Rumah Besar Raja Billah, Rumah Asal, Masjid Papan and Rumah Bilal.

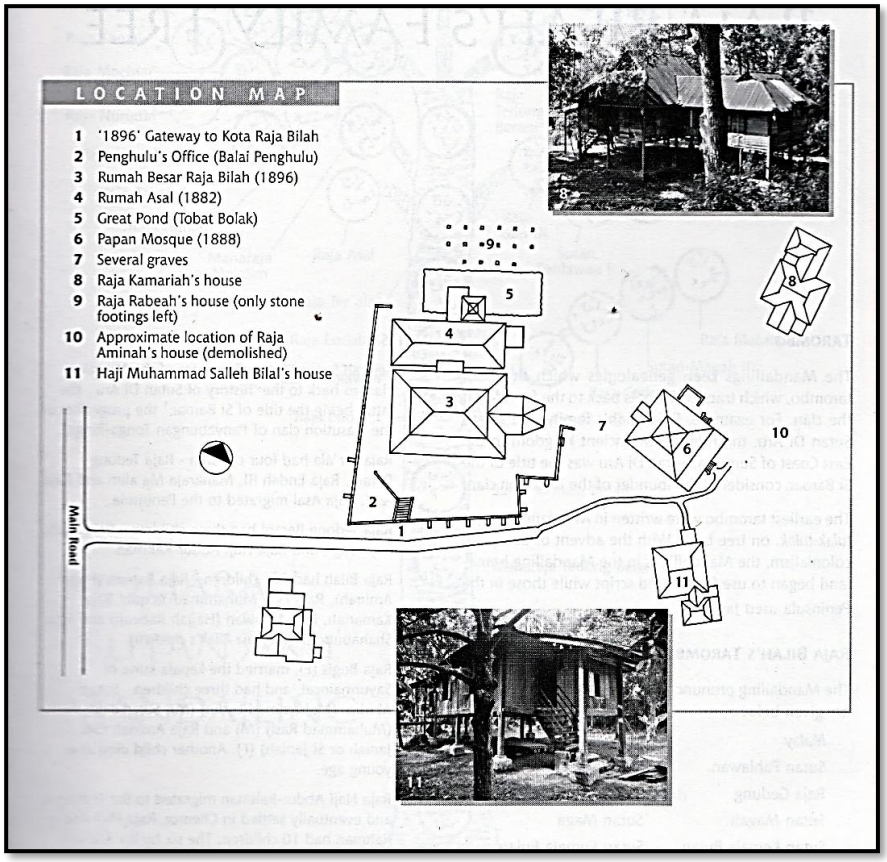


Figure 4.38 Location Map of Kampung Mandailing Shows the Layout of Rumah Besar Raja Billah which Built Surrounded by Gateway and Penghulu Office

4.9.1 Rumah Asal & Rumah Besar Raja Billah

In 1896 Raja Billah built "Rumah Besar" which was similar with '*Bogas Gadang*" the Mandailing's royal abode and functioned as the administrative centre for Papan and the activity of the Malay Mandailings in Kinta District. It is a double storey residence which the lower level was constructed from bricks and upper level was built with cengal wood. This building was built adjacent to Rumah Asal which was built earlier for Raja Billah's family house. (fig 4.39 & 4.40). This building is provided with a large hall on the ground level constructed with pillars of an octagonal shape which symbolized a building which was constructed with the support of the people from 8 points. The lower level was also occupied with a stage for the leader to give speech during an assembly. The upper level was built consist of guest rooms and another hall (fig 4.41). This house was surrounded with decorative wall where the guard house and doorway were located which designed with the number 0f 1896 curved on its pediments to signify the date of its completion (fig 4.42).



Figure 4.39 External View of Rumah Besar Raja Billah



Figure 4.40 Rumah Asal Which Built Adjacent to Rumah Besar for Raja Billah Family and Used as Caretaker House in Present.



a b

Figure 4.41 Interior View of Rumah Besar Raja Billah- Interior View of Rumah Besar Raja Billah Shows The 'Tiang Segi Lima' on The Ground Floor (A) and the Timber Construction on the Upper Floor (B)



a b

Figure 4.42 Decorative Wall Where the Guard House and Doorway (A) were Located which Designed with the Number Of 1896 Curved on its Pediments to Signify the Date of Its Completion and Detail of Wall Decoration (B).

4.9.2 Masjid Papan & Rumah Bilal

Built in 1888 by Raja Billah, Masjid Papan is the oldest mosque in Perak and one of the landmarks of Islamic influence in Perak. Its construction was based on the request by Perak head of Khadi (fig 4.43 & 4.44). Other than religious activities, the mosque functioned as the Islamic institute in Kinta and the first public building in Papan and its vicinity. The building was built with four pillars which resulted in larger pray areas and tiered pyramidal roof (*bumbung Meru*) (fig 4.45 & 4.46). This mosque was mainly used by the Muslim Community such as Mandailing, Rawa, Javanese and Malay from Pusing, Lahat, Batu Gajah, Seputeh and Tronoh until World War ii. After that it was used by Raja Billah's family and Muslim visitors. Rumah Bilal was built adjacent to Papan mosque to cater the bilal's duty to the mosque activity. Today both the mosque and Bilal's house are abandoned.



Figure 4.43 Access to Masjid Papan as Landmark to Kampung Mandailing.



Figure 4.44 Front Elevation of Masjid Papan.



Figure 4.45 Interior View of View of Masjid Papan Shows Mimbar of The Mosque. (Source: Abdul Razzaq Lubis 2013)

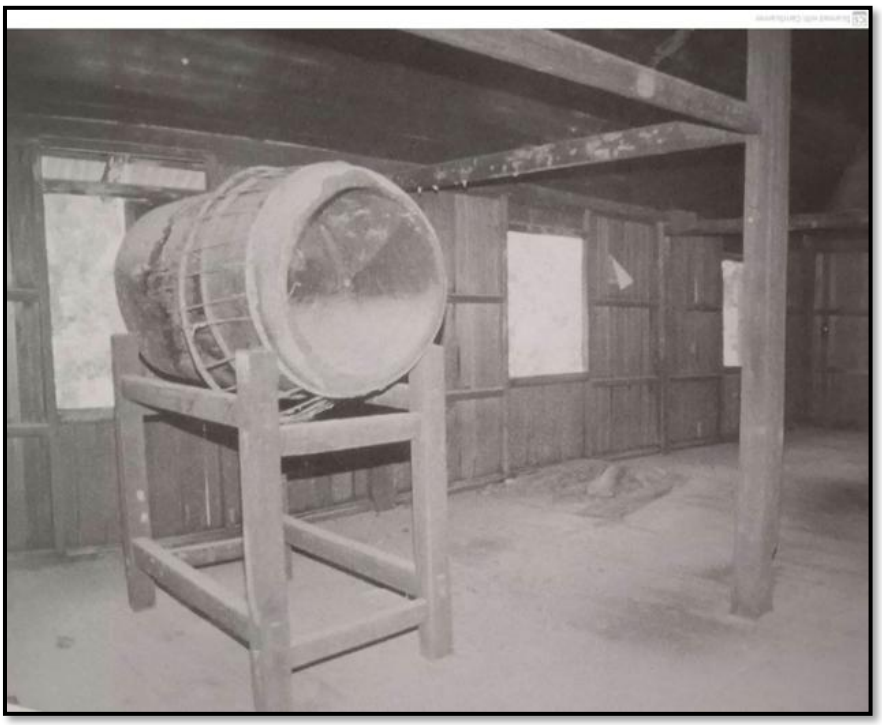


Figure 4.46 Interior View of View of Masjid Papan Shows Bedok Used to Alert People During (Source: Abdul Razzaq Lubis 2013)

Rumah Bilal Haji Muhammad Salleh was built in 1900 after the completion of Masjid Papan (Lubis 2013). This house was used by the caretaker of Masjid Papan, Haji Muhammad Salleh Bilal to manage the activity of Masjid Papan such as Friday prayer and arranging Islamic class for the Malay people in Papan. The house was then lived by his successor until year 1990 and left in dilapidated condition (fig 4.47).



Figure 4.47 Rumah Bilal Haji Muhammad Salleh

4.10 Kampung Baru Papan

Kampung Baru Papan was formed in 1940 to sustain the overwhelming number of populations in the town area, giving a shift in the functions of the Chinese house and resident in order to generate people socioeconomic needs. The buildings formed a row unit which run along the middle alley and single unit which located at rear side of the shophouses (fig 4.48- 4.54). Most of the buildings were built using timber construction technique with expose ceiling and rafter. There are four types of houses found in Kampung Baru Papan which is row houses, single storey unit, single storey semidetached unit and double storey unit. The single unit mostly surrounded by yard used as a garden or to plant vegetables by local people.

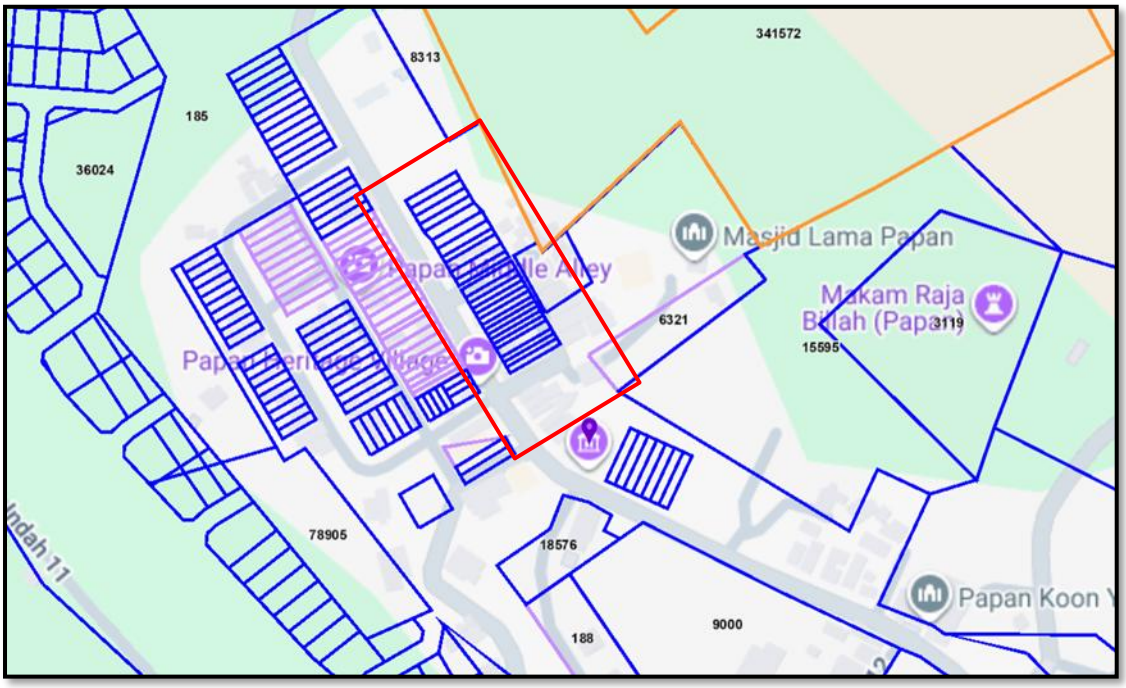


Figure 4.48 Location Map of Kampung Baru Papan



Figure 4.49 Aerial View of Kampung Baru Papan which Located Along Mid Alley/ Rear Side of Old Shophouses



Fig 4.50 Aerial View of Kampung Baru Papan



Figure 4.51 View of Row Houses at Kampung Baru Papan Along Mid Alley and Rear Side Of Old Shophouses



Figure 4.52 Front Elevation of Row House at Kampung Baru Papan



Figure 4.53 Front Elevation of Semidetached Single Storey House at Kampung Baru Papan



Figure 4.54 Single Unit House at Kampung Baru Papan.

The interior of houses in Kampung Baru Papan shows a typical Chinese house which use timber as building material with open planning to divide the space within the area starting from living area, dining in the middle and kitchen/ bathroom at the back. This house provides single bedroom which located at the middle and raised up on a terrace with a large space for the whole family to sleep. Most of the houses using expose trusses for ventilation purposes (fig 4.55).



a b

Figure 4.55 Typical Interior of Timber House In Kampung Baru Papan Show the Family Area (a), Dining and Kitchen (b).

4.11 Public Buildings

There are several public buildings built in Papan main road despite of Rumah Besar Raja Billah and Papan Mosque are still existing and create as marker in Papan. Most of the public buildings which were built by British such as old stable, police station and prison was demolished but some remained as landmark which have shown the essence of historical and cultural value for Pekan Papan. Kun Yam Miu Temple and Chinese Theatre building located at the starting point of road to Pekan Papan was built in 1847 to sustain the spiritual needs of miner (fig 4.56 & 4.57). The Yip Sei mansion building located along the main road act as welcoming image to Pekan Papan (fig 4.58 & 4.59). At the middle point of Pekan Papan, a building used as coffee shop and as community centre where people in Papan meet for social activity (fig 4.60 & 4.61). Another building which was demolished are the public market and its location have been replaced by the main hall which became the centre of community's activity

in Pekan Papan (fig 4.62). Within the shophouses area, Hwa Chao Chinese School was built in 1911 to catered children education in Papan. In 1925, the school was given a recognition by the British through inspector of school (fig 4.63). In present new school, SRJK (Chinese) Papan have been built to catered educational needs for children in Papan (fig 4.64). Another building which was created as public attraction was Sybil Khatiagasu Gallery which was opened in 90's and yet abandoned until today. The building was a former clinic of Dr Sybil Kathiagasu and his husband who take an important role during insurgency (fig 4.65).



Figure 4.56 Aerial View of Chinese Theatre and Kun Yam Mui Temple



Figure 4.57 Kun Yam Mui Temple



Figure 4.58 Aerial View of Yip Sei Mansion



Figure 4.59 Yip Sei Mansion Building

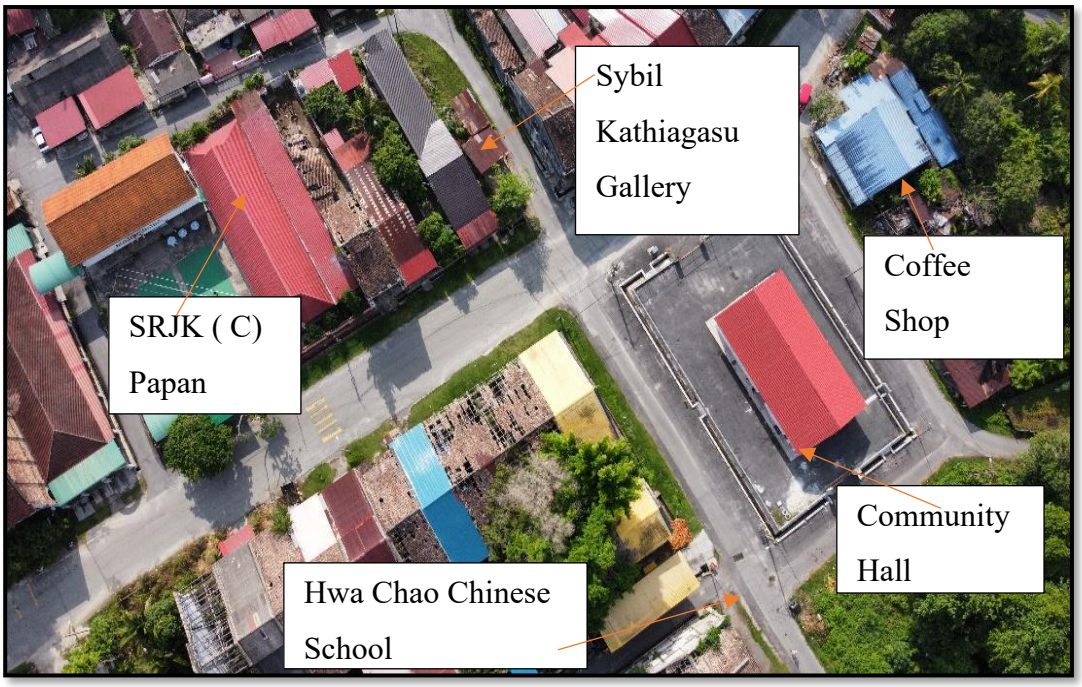


Figure 4.60 Aerial View of Public Buildings



Figure 4.61 Coffee Shop Which Located at Middle Point Road in Pekan Papan.



Figure 4.62 Community Hall (Former Market) Which is the Main Focal Point for Community Activity in Pekan Papan.



Figure 4.63 Hwa Chao Chinese School which previously used as primary school in Pekan Papan and abandon in present



Figure 4.64 SRJK (Chinese) Papan which catered for education for children in Pekan Papan.

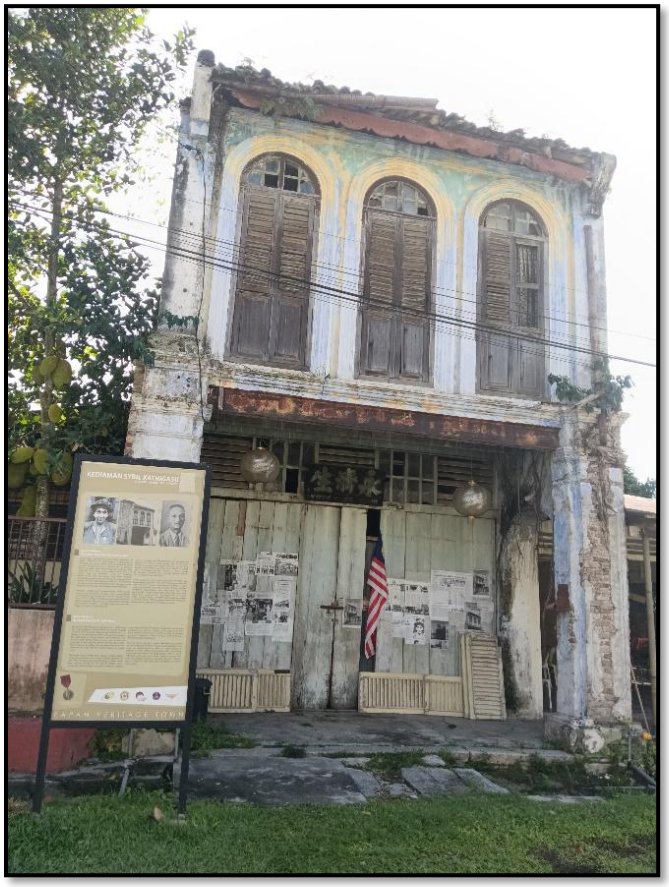


Figure 4.65 Sybil Kathiagasu Gallery Which Abandon in Present.

4.12 Back Lane and Middle Alley

Another distinctive character in Papan is the back lane which connect the rear side of old shophouses and the front of row unit houses in Kampung Baru Papan (fig 4.66). This lane has been used as main pedestrian roads for resident mostly for their cultural activities (fig 4.67). The road has been painted with mural to show their culture (fig 4.68) and the rear side of the shophouses has been decorated with landscape element and artwork such as graffiti and sculpture (fig 4.69 & 4.70) from local resident while the rear side of the shophouses have been decorated with mural and as a placemaking of the secondary entrance to the old shophouses (fig 4.71).



Figure 4.66 Aerial View of Back Lane/ Middle Alley Between Row House in Kampung Baru Papan and Rear Side of Old Shophouses.



Figure 4.67 Backlane/ Middle Alley Between Row House at Left and Rear of Old Shophouse at Right



Figure 4.68 Mural at Road area Painted by Local Residents.



Figure 4.69 Graffiti Painted by Local People on the Wall at the Rear of Old Shophouses.



Figure 4.70 View at Back Lane Where Sculptural Park Done by Local Resident as Sense of Memory to Pekan Papan.

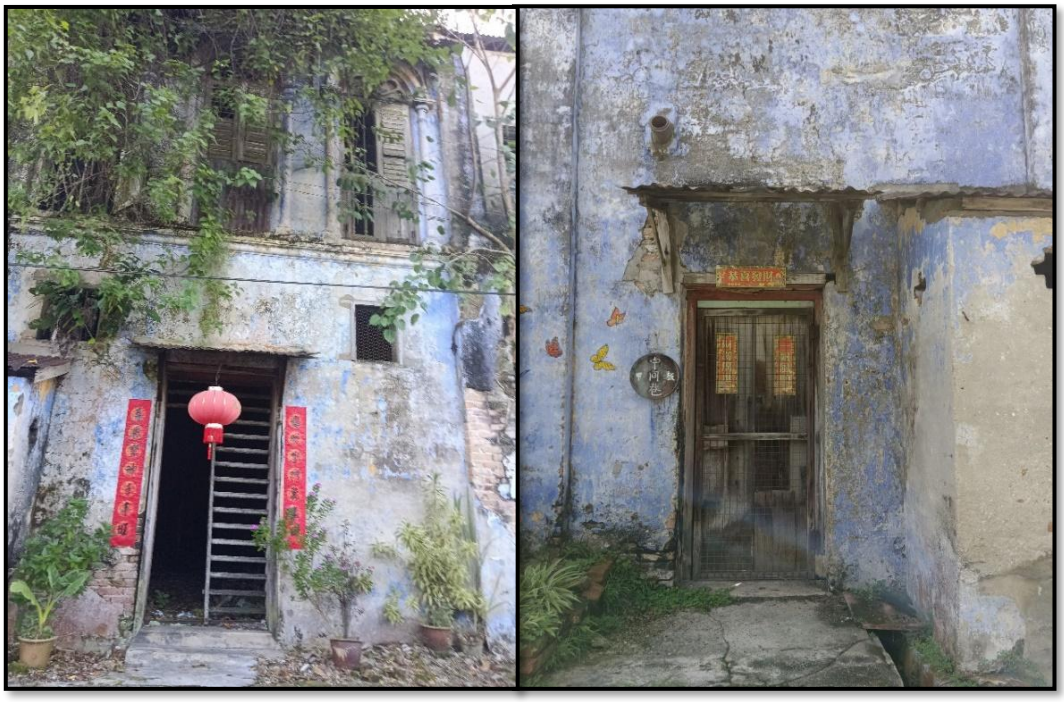


Figure 4.71 Rear Side of Pre-War Shophouses

4.13 Tin Mining Pond and Landscape

In present there are two mining ponds which still remain in Pekan Papan. From historical record these ponds have been excavated several times which have vanished the historical evidence such as the location of prison and horse stable in Papan (fig 4.72). The mining pond which located nearby the shophouses was a location of workers barrack which then have been removed to Kampung Baru area adjacent to old Papan. Most of the landscape area in Pekan Papan still remain the natural vegetation and topography along the hillside. Kampung Mandailing located at hillside area and rich with natural vegetation and landscape which represent the image of Kampung Melayu (fig 4.73). At the shophouses area, most of the landscape are the wild plants which live along the building's wall such as Banyan trees. Some of man-made planted trees still exist along road reserve such as palm which shows the essence of colonial era (fig 4.74).



Figure 4.72 The Mining Pond Which Still Exist in Pekan Papan



Figure 4.73 Natural landscape at kampung Mandailing



a b

Fig 4.74 Bayan Wild Plant and Manmade Tree Which Still Exist as Landscape Element at Front (A) and Along Rear Side of Pre-War Old Shophouses In Pekan Papan (B).

4.14 Conservation Effort in Papan

Since the enclosure of Papan tin mining activities in the 80's, the town have become abandoned due to the numbers of population who left Papan to another area in Perak. The building condition have been left in dilapidated condition and there is no action taken to conserve Papan from local authority. An interview was held in 2017 by author with Planning officer from Majlis Daerah Batu Gajah and informed nothing can be done with Pekan Papan since it cannot generate income to the state. An interview with Papan Heritage Society was held to investigate the scenario happened in Pekan Papan and they have informed that half of the shophouses was leased to bank by a company and there's a plan to open a new mining pond at the area where the old shophouses located. The plan then was hold due to the decrement market price of tin. The awareness on conservation only focus to specific building such as Rumah Besar Raja Billah which was gazzeted as heritage building by Jabatan Warisan Negara but then been neglected due to the problem of ownership. Some action also taken by local community to promote historical value in Papan by opening Sybil Kathiagasu gallery but later it was closed due to no promotion.

4.15 Papan Heritage Walk 2022 &2023 as an Eye Opener to Public

The awareness to conserve Pekan Papan Started in 2017 where there's a brainstorming session among young generation who move back to Pekan Papan. They have found the uniqueness of Pekan Papan where most of the assumptions from public that Papan is a haunted town which left abandon, waiting to be demolish or replace from rapid development. After discussion with the local community lead by Mr Law, a group of local people was created under Papan Heritage Society led by Mr Jacky Chew and Ms Leong and Pn Hafizah Muhamad as Mandailing community representative who plan the activity to conserve Papan. The idea came to reality where in 16th September 2022 on Malaysia Day, an event called Papan Heritage walk 2022 was held as an eye opener and open-door event to welcome public to visit Pekan Papan. The event then continues on 2023 which have created a positive respond from the public (fig 4.75-4.77). In June 2023, Pekan Papan has been announced by the *Kementerian Pembangunan Kerajaan Tempatan* Malaysia (KPKT) for UNESCO World Heritage Site nomination (reported by Mohamad (2023) through BH Online). Significantly, Pekan Papan and surrounding

villages are evidence of the industrial mining landscape shaped by tin mining activities. Old mining ponds, Chinese villages (once occupied and settled by the mining coolies), Kampung Mandailing v, including Rumah Besar Raja Billah and Rumah Asal, and Masjid Papan, (the first Mandailing mosque in Malaya) together with public hall, school, abandon old shop houses, old signages, and even the cemeteries were among the old urban fabric and artefacts that survived today (Suriati 2024).





Figure 4.75 Yearly Program Arranged by Papan, Heritage Group and Collaboration with Local Community in order to Attract People to Visit Papan.



Figure 4.76 Variety of Activities Happened During Papan Heritage Walk Where It Involved Cultural, Activities, Local Culture and History



Figure 4.77 Combination of Concepts Such as Retro, Traditional Custom and Local Food Which Represent the History and Cultural Essence of People in Perak and Specifically In Pekan Papan

4.16 Official Opening of Papan Heritage Gallery and Proposal of World Heritage Cultural Village under UNESCO

Papan Heritage Group have prolonged their plan in the awareness to conserve Papan and transform the place as a new tourist attraction in Perak. On 22 September 2022, Pekan Papan have been chosen as one of potential new village to be listed as World Heritage Village and visit and public talk have been arranged amongst experts from scholars, historian, local authority and representative from UNESCO. The aim of the talk was to promote Papan as World Cultural Village under UNESCO. On this day , Papan Heritage Gallery was officially opened in order to give information to public about Pekan Papan. Papan now have been nominated as a World Heritage Village and still under surveillance from UNESCO where certain guidelines especially to ensure the authenticity of the village is to be considered in the conservation awareness activities. JWN (Jabatan Warisan Negara) will prepare a dossier and submit to UNESCO for an evaluation (fig 4.78). Since the opening of the gallery, many awareness activities done to promote Papan to public such as historical visit, information booth have been provided to give information about Papan and the important to conserve it (fig 4.79 - 4.81).



Figure 4.79 Official Opening of Gallery Papan. Source: Perak Heritage Society



Figure 4.80 Official Opening of Papan Heritage Gallery Located at Kampung Baru Papan



Figure 4.81 Awareness Program Arranged by Papan Heritage Group in Order to Promote Pekan Papan as one of the Potential Town in Malaysia. The Opening of Papan Heritage Gallery, Programs Such as Tourist And Educational Visit and Information Provided By Local Authority.

4.17 Conservation Effort from NGO and Local Community

Since the official opening of Papan Heritage Gallery and in order to achieved criteria as World Heritage Village under UNESCO, many action taken especially by Papan Heritage Group with participation by local community to promote Pekan Papan to public. From social media, collaboration with local and foreign University, promotion to public, participation from local authorities and NGO, lots of program have been done which relate to history, academic, and tourism as an eye opener and as an awareness to conserve Papan (fig 4.82). In present, Pekan Papan started to be recognized in local and internationally as a unique Town which previously have been

forgotten. However, in order to maintain the authenticity, Papan Heritage Group informed they still lacking formal strategies especially as conservation guidelines to avoid over development which will destroy its original image.



Fig 4.82 Awareness Program Which Collaborate with Other Parties, Promotion Through Media Academic Institution and Program Arranged By Mandailing Community

4.18 Conservation Strategies and Proposal from Local Authority For Pekan Papan

Reference to Majlis Daerah Batu Gajah Structure Plan 2025. Pekan Papan have been selected as one of the small towns which have a potential to be conserved and developed. From the SWOT analysis done by MDBG, Pekan Papan have been identified as one of the towns which have a weakness in term of its abandonment, functionally and physically which contributed to imbalance development in the district. Therefore, Pekan Papan have been identified as one of the former tin mining towns which have a potential to be developed as one of the ecotourist attraction in Lembah Kinta such as to upgrade Taman Herba Papan as one of agrotourism attraction and

Rumah Besar Raja Billah to promote Mandailing culture to the public. However, some unsympathetic proposals have been listed by MDBG for example to convert the old shophouses to new boutique hotel without considering the current condition of the buildings especially the safety factor with no proper conservation management plan, dilapidation report especially on the old shophouses. In present only Rumah Besar Raja Billah have been gazetted as heritage entity by Jabatan Warisan Negara but in present the building condition also left in dilapidated condition but there is still an effort by local to promote it to the public (fig 4.83).



Figure 4.83 Rumah Besar Raja Billah Which Left in Dilapidated Condition and an Effort by Local to Promote its Existence by Arranging a Night Visit Activity

4.19 Summary

Pekan Papan was one of the earliest tin mining towns which have developed with facilities same with another town in Perak such as Ipoh and Taiping. The uniqueness of the town is it consist of multicultural value where it first opens by Mandailing and then vacant by Chinese as tin mining workers and British as administration parties which control the development of the town. Compared to other towns in Perak, Pekan Papan have been forgotten since the insurgency and the drop of tin price which make the town left in abandonment for more than 4o years. The awareness of local community has generated the effort and awareness to conserve Pekan Papan and promote it as one of tourist attraction in Perak where many activities and campaign were arranged and have shown a positive vibe. In present Pekan Papan have become popular among tourist from various background, from academician, researcher, film maker and historian and it start to change in term of development. It is really important to ensure Pekan Papan not to involve in over development which will destroy its authenticity and therefore, a proper strategy is needed as guidelines which will be discussed in the analysis of this research in Chapter 5.

CHAPTER 5
ANALYSIS AND FINDINGS

5.1 Introduction

In this chapter, analysis and findings from the case study have been explored in order to reveal the appropriate urban conservation strategies for Pekan Papan. The study is focusing on the physical characteristics of the towns which consist of the tangible quality in the former tin mining town. The aim of the research is to create strategies for the purpose of urban conservation and to regenerate the interpretation of cultural heritage value. The qualitative method was used which mainly based on primary and secondary data. The primary data collected focusing on case study of Pekan Papan by using in depth investigation and observation towards a specific phenomenon setting of the urban structure, cultural landscape and architectural features through its development process and relationship to the local cultural activities while the secondary data are collected from others include reports, journal articles and book

5.2 Data Analysis

Reference to chapter 4, the method used for this research are qualitative and the study were done through 5 ways:

1) Observation
2) In Depth Interview
3) Physical mapping
4) Historical document
5) Focus Group discussion

5.2.1 Observation Analysis

For observation techniques, the data was analyzed qualitatively/descriptively through a ' thematic analysis ' approach where data have been recorded according to the concept or theme, similar to analyzing the in-depth interview techniques. The technique has been used through three methods, i.e. a photograph, a notetaking and a notetaking

in storyboard format is also used in this study as proposed by Thomas (2002). It allows the data to be outlined in visual form because it includes a combination of analytical sketch (analytic), and photo supported with related explanations. The argument is that this method seeks to encourage the reviewer to be more sensitive to small matters and focus on the subject of the home rather than the less important element. This approach was also used by Jaafar (2014); Samsuddin & Sulaiman (2002); Mulyadi (2008); Cullen (2012); and Lynch (1960). The results of data analysis of this technique have been used to explore tangible elements and its quality or as a complement to the information with other techniques to balance the overall result (Jaafar 2014; Mulyadi 2008).

5.2.2 In Depth Interview Analysis

The data were analyzed by using descriptive/qualitative analysis of the 'based code' to secure the concept/theme of the study. Initially, all the information and data recorded were changed to the form of transcripts. Furthermore, content analysis techniques have been used to get the concept/main theme of the study. This process is known as ' a Thematic analysis ' by Guion et. Al (2011) and this is one of the methods taken to filter and give priority to important findings as well as irrelevant data (Tobi 2013). To ensure that the concept is in line with the theories that exist from the respondents' responses, researchers need to examine and make detailed reading over time (Guion et.al 2011). This technique is made by identifying the Research Analysis Unit (physical element) and the contribution/quality (e.g. legibility) through a main component identified by urban structure, buildings and cultural landscape. This approach can facilitate comparative data associations from each respondent. This is an advantage of qualitative analysis where data from each respondent is considered important even through one variable from a respondent. The data obtained from each respondent has been thoroughly researched to identify the pattern of the study. If the observations and analysis found that the data patterns are the same for each study, then the theory available today can be used. If the data pattern is different and not focused, it is less relevant to use. The entire data patterns have been analyzed for this technique to be intersected and made comparisons with other techniques especially visual survey techniques through the site and the observation of Behavior (Jaafar 2014).

5.2.3 Physical Mapping and Responsive Environment Analysis

All data and information that is recorded through photo photographs, sketch books and observation map activities have been analyzed by qualitative/descriptive according to the themes identified in the Schedule form. The data was encoded in the main theme, namely legibility from the urban character, cultural landscape and architectural features the findings of the data have been compared to other techniques in order to identify the reliability of its findings. The physical mapping and responsive environment analysis was conducted to examine the spatial characteristics of the study area based on the Responsive Environment framework proposed by Ian Bentley. While the analysis considers several urban design principles such as permeability, variety, robustness, visual appropriateness, richness and personalisation, the primary emphasis of this study is placed on legibility. Through detailed mapping of physical elements including street patterns, landmarks, nodes, edges and building forms, the analysis evaluates how the physical environment contributes to the clarity, identity and ease of spatial recognition within the study area. The focus on legibility is important as it influences users' ability to understand, navigate and form mental images of the urban environment, which ultimately contributes to the overall spatial experience of the place.

5.2.4 Historical Document Analysis

The data were analyzed through content analysis by defining the theme in the text/group of specified text based on literature study (Samadi et al. 2012; Colorado State University 2012). This text refers to newspapers, magazines, journal articles, books, speech quotes, chapters in books, historical documents, interviews, discussions etc. By using a source of reference from various text in order to obtain historical information, it clearly shows that this technique is very relevant to collect quality data related to one place history (Colorado State University 2012). This technique has been analyzed by descriptive methods through the approach of thematic analysis where data has been encoded into two aspects of study i.e. appearances and functions for building and landscaping components. The results of this analysis have been compared and associated with other techniques to balance the overall study results.

5.2.5 Focus Group Discussion Analysis

This technique has been analyzed by qualitative/descriptive using content analysis techniques, which is used to re-streamline data based on the theme according to the theoretical framework of the review. Findings from the group's focus sessions were combined and the results of discussions involving any improvement or reduction will be listed according to the objectives of the study. According to Greenbaum (1998), the most important aspect of this technique is the participation session together with the focus group and the idea to achieve a study goal instead of accepting an opinion from one person. More convincing as the result of the study contributed to the respondent who also acted as stakeholders in this study.

5.3 Categorizing of Buildings from Zoning in Pekan Papan

The layout of Pekan Papan started from Jalan Pusing which is the main road connecting Pusing and towards Ipoh. From the mapping on the layout of the town, based on historical record and old map obtained from books, the recognition of legible elements at the main urban structure in Pekan Papan have been categorized into a zoning of usage consists of old shophouses, Community Centre, Mandailing Settlement, Local settlement (Kampung Baru Papan),mining ponds and green area which sit along its natural topography such as hill side and river and man-made elements such as roads, streets and square (fig 5.1 & 5.2 & table 5.1). The main features of along the roads can be categorized into 4 types of development where the main shophouses are located, secondary roads towards Kampung Mandailing, Kampung Baru Papan and middle alley which connect the rear of old shophouses and row house of Kampung Baru. The main features of Roads can be categorized into main roads where the main shophouses are located, secondary roads towards Kampung Mandailing, Kampung Baru Papan and

back lanes which connect the rear of old shophouses and row house of Kampung Baru Papan.



Figure 5.1 Site Boundary of Pekan Papan Shows The Area where Old Buildings Which Built During 18th Century Located.

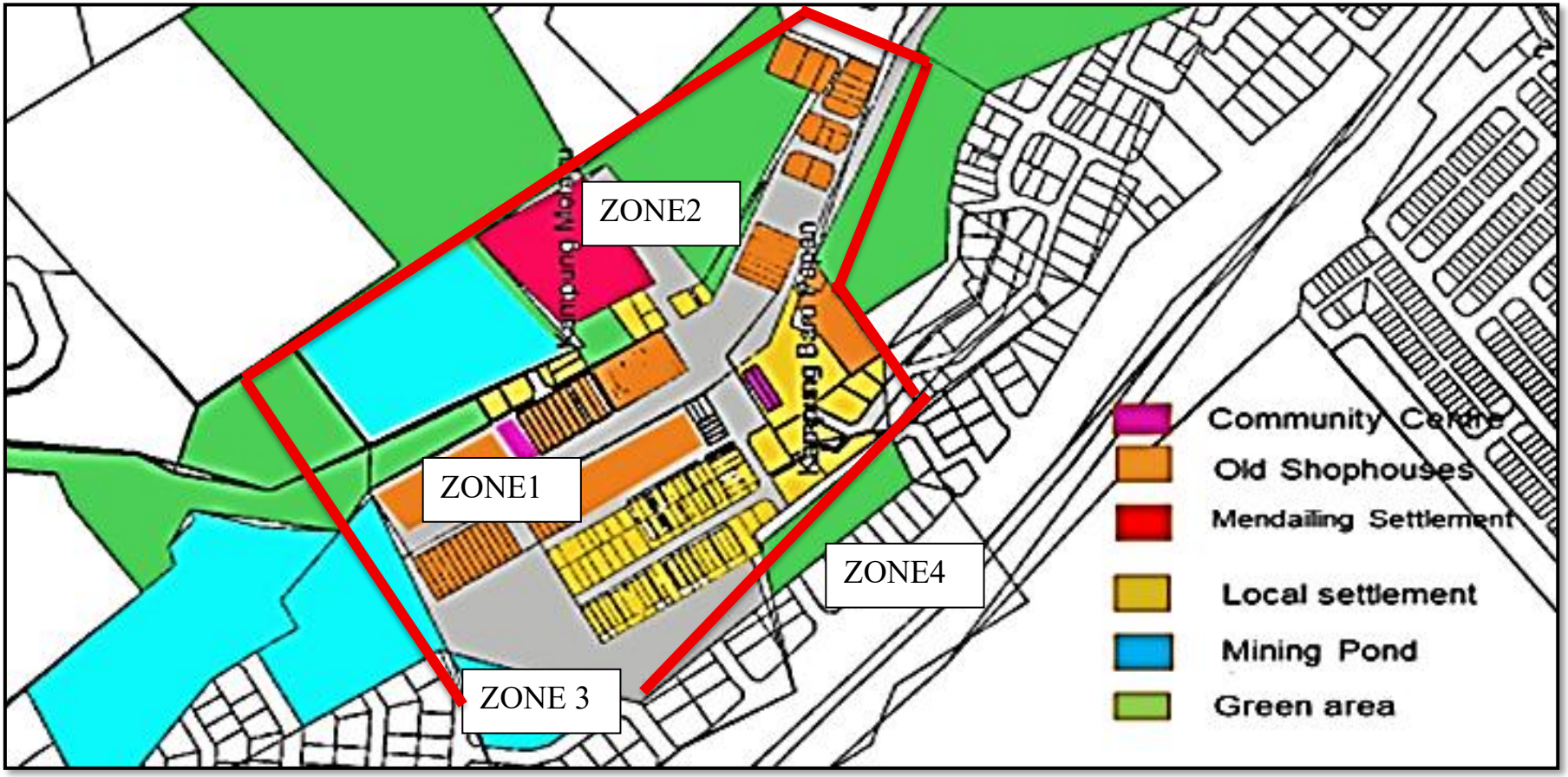


Figure 5.2 Zoning of Pekan Papan Based on its Building Usage and Local Settlemen

Table 5.1
Buildings According to Zoning in Pekan Papan

Zone 1 Pre-War Shophouses	**Zone 2 Kampung Mandailing**	Zone 3 Kampung Baru Papan	**Zone 4 Middle Alley**
 Pre- War shophouses	 path at Kampung Mendailing	 Tin mining area	 Street
 Corner at shophouses	 Wall	 Residential area	 Row houses

 Frontage	 Rumah Besar Raja Billah	 Street	 Frontage
 Facade	 Masjid Papan	 Single unit	 Rear of shophouses

5.3.1 Analysis Zone 1- Pre-War Shop Houses

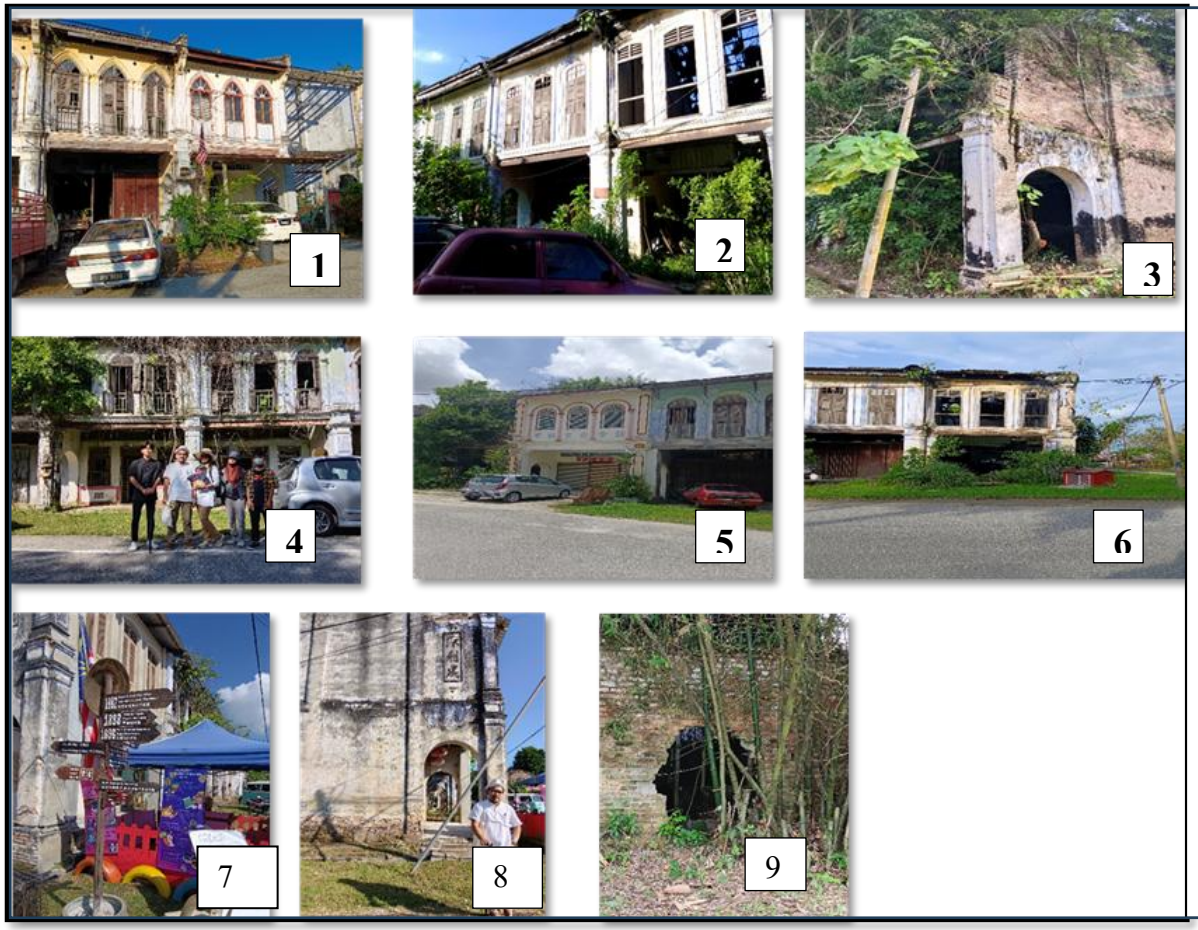
From historical records and survey on site there are 100 units of shophouses built in Papan and only 70 units which still exist which were built in 1888. From 70 units, 30 units still occupied mostly at ground floor and the rest was left in dilapidated conditions (Table 5.2). The pre-war shophouses still remain its original façade of street eclectic styles which could be seen from the arrangement of windows, roof, column architrave and five-foot way. The usage of timber sliding door and decorative porcelain at the wall shows the essence of Chinese architecture. Most of these building was left which cause a wild plant such as banyan trees wildly plant within the building area. From the interview with local people, they have informed that most of the buildings were built with bricks and limestone finish with no columns provided which made the structure quite fragile for new construction. In present, the existing conditions of these buildings have become a main attraction to visitors which mostly interest on the originality and authenticity of its architectural façade. Which create an aesthetic value to the town (fig 5.3). The pre-war shophouses could be categorized into four types (table 5.2).

The original features of the interior have become an archaeological site as attraction for people to understand the architecture and interior design and construction as well as aesthetic value which gave a dramatic impact for activities such as photography. In term of cultural activities, most of the buildings were used as a house by local people and 1 unit have been used as a coffee shop as daily activity of local resident. The current condition of buildings which surrounded by natural landscape have created a sense of calmness to overall page environment of Pekan Papan (fig 5.4).

Table 5.2

Pre-War Shophouse category in Pekan Papan

Category 1	Category 2	Category 3	Category 4
Old Shophouses which have been demolished based on record (30 unit) - Ownership not clear - Usage based on historical record - Totally abandon - Only part of structure appears -	1. . Old shophouses which abandon but the structure still exists. (20 unit) - Private ownership - Usage based on historical records. - Building in dilapidated condition. - Part of structure such as column and wall still exist.	Old Shophouses which only occupied at ground floor and abandon at 1st floor (20 unit) - Private ownership - Usage mostly for residential - Building in deteriorate conditions - Still maintain original facade	Old shophouses which occupied and have been renovated / changes at the façade. (30 unit) - Private ownership. - Usage mostly for residential or shops. - Building in good or moderate condition at both levels. - Original facade has changed. -



Pre-War shop houses condition in Pekan Papan

1. Front elevation of pre-war shophouses which still occupied.
2. Pre-war shophouses which still occupied.
3. Abandon shophouses which once used as clubhouse and abandon
4. Abandon shophouse which still remain its façade
5. Pre-war shophouses which have been renovated
6. Pre-war shophouses occupied only at ground level
7. Activities along shophouses
8. Arch towards 5 footways of Pre-war shophouses
9. Abandon Pre-war shophouses

Figure 5.3 Pre-War Shop Houses at Zone 1



Figure 5.4 Interior and Architecture Detail at Pre War Shophouse

5.3.2 Analysis Zone 2- Kampung Mandailing

Pekan Papan was once a centre for Mandailing population since it was opened by Raja Asal due to the opening of tin mining in Pekan Papan. From historical record, Pekan Papan have become one of a centre for administration and religion for Mandailing community in Perak. There are five (5) categories of buildings in kampung Mandailing (Table 5.3).

Rumah Besar Raja Billah is a landmark in Papan with its typical Mandailing Architecture (*Rumah Bagas Godang*) which could be seen at the façade and roof design. The essence of Chinese and colonial architecture also could be seen in some parts of building especially at ground floor at the column and arch which using Tuscan pillars and organic ornamentation at walls and windows. The ground floor system was construct on eight octagonal pillars for structural system and brick with limestone plaster for wall. Timber was used as construction material and detail at first floor. Masjid Papan was an earlier mosque built in Perak. It was built with timber and construct based on 4 pillars on square plan. Most of the structural element was built on stilt and the wall construction is using '*pasak*' system. (tenon and peg system). The roof is using' *Atap Meru*' design (Pyramid roof) on double tier construction which could be seen from the earliest mosque design such as kampung Laut Mosque in Kelantan (fig 5.5 & 5.6).

In present, the only built form which still exist are Rumah Besar Raja Billah, Rumah Asal, Masjid Papan and Rumah Bilal but sadly it was left in dilapidated condition since the migration people in 1916. Since the deceased of Raja Kamariah (the caretaker) in 2022, there' s not much effort to make any conservation program even though Rumah Besar Raja Billah was the only building gazzeted as heritage building by Jabatan Warisan Negara in 2012 (table 5.3, fig 5.5-5.6).

Table 5.3

Building Condition in Kampung Mandailing

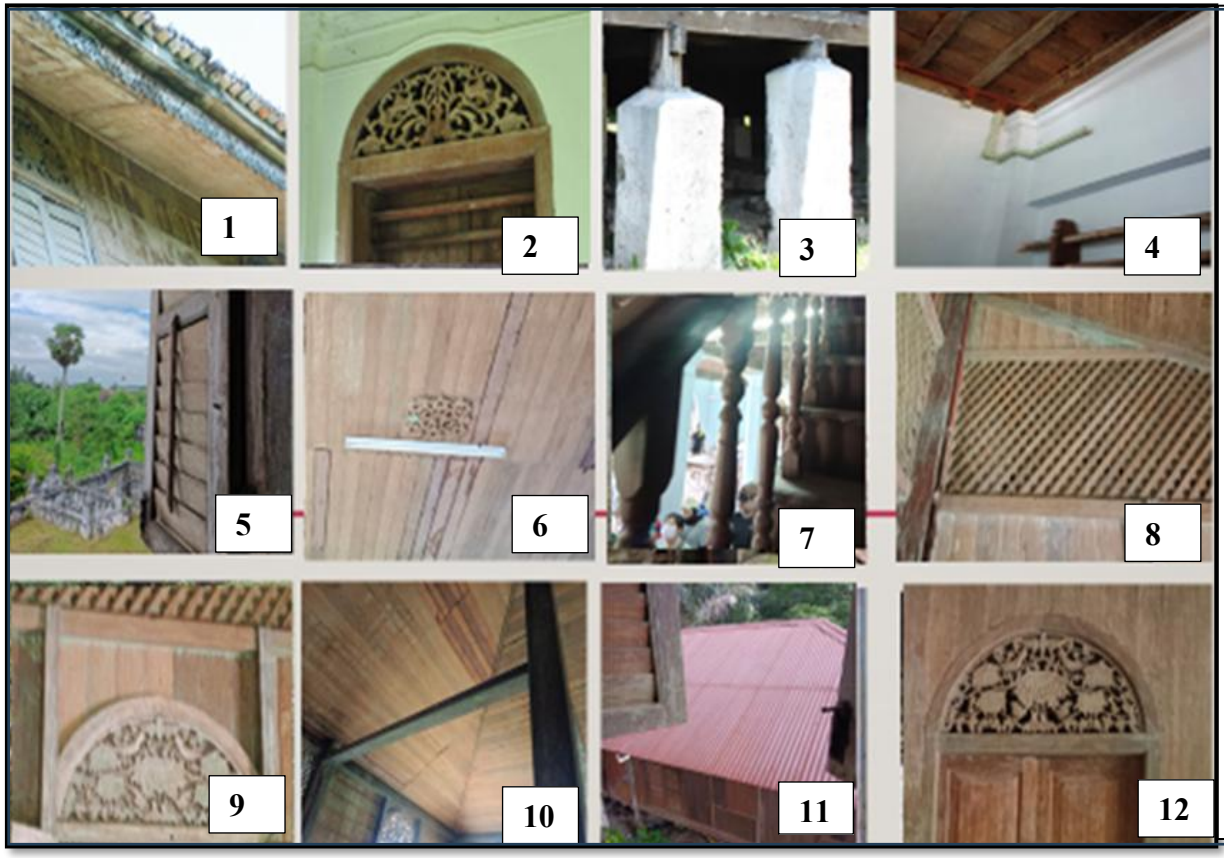
Rumah Besar Raja Billah	Rumah Asal	Masjid Papan	Rumah Bilal	Other Buildings/ elements
1. Existing structure and features still maintain. 2. Roof in dilapidated condition 3. Façade element such as window in dilapidated condition 4. Timber material such as floor and wall in dilapidated condition.	1. Existing structure and features still maintain. 2. Façade element such as window in dilapidated condition 3. Timber material in dilapidated condition	1. Existing structure and features still maintain. 2. Roof in dilapidated condition 3. Façade element such as window, wall, fascia board in dilapidated condition 4. Timber material such as floor and wall in dilapidated condition	1. Existing structure and features still maintain. 2. Roof in dilapidated condition. 3. Façade element such as window, wall, fascia board in dilapidated condition. 4. Timber material such as floor and wall in dilapidated condition	1. Gateway and Balai. 2. Penghulu still maintain but in deteriorate condition. 3. Rumah Raja Kamariah, Rumah Raja Rabeah and Rumah Raja Aminah- demolished. 4. Graveyard still maintain surrounding Rumah Besar and Rumah Asal. 5. Existing landscape still maintains without maintenance.



Exterior condition of building at Kampung Mandailing.

1. Road towards Kampung Mandailing
2. natural landscape
3. landscape and Masjid Papan
4. Front Elevation of Masjid Papan.
5. View towards Rumah Asal
6. Rumah Besar Raja Billah current condition
7. Side view of Rumah Besar Raja Billah
8. Wall at Rumah Besar Raja Billah

Figure 5.5 Buildings in Kampung Mendailing



Interior condition in Building at Kampung Mandailing

1. *Papan cantik* at Rumah Besar Raja Billah in deteriorate condition.
2. Decoration at main door
3. Column condition at Masjid Papan
4. Timber ceiling in Rumah Besar
5. Louvres Window at Rumah Besar
6. Leakage at Ceiling at main hall of Rumah Besar
7. Timber balustrade at Rumah Besar
8. Ventilation in upper floor Rumah Besar
9. Decoration at door at upper floor Rumah Besar
10. Ceiling at Rumah Besar
11. Roof condition at Rumah Asal
12. Decoration at door upper floor Rumah Besar

Figure 5.6 Detail at Rumah Raja Billah

5.3.3 Analysis Zone 3- Kampung Baru Papan

Kampung Baru Papan was located at the rear side of pre-war shop houses buildings in Papan. Based on historical record, the site was once a football field and site for police station on 18th century. Kampung Baru Papan was built on 1964 as a new settlement for tin mine workers due to the opening of 2nd mining pond in Papan. Most of the built form consist of row houses (48 units), and single unit (37 units) which built with timber construction (table 5.4). The design implemented was a typical Chinese Architecture for house with high ceiling and open planning. In present, Kampung Baru Papan is centre of community where most of them doing their daily activities. Most of the promotions towards nominating Papan as world heritage village which involved cultural activities was held at this area in term of local activities such as exhibition, local foods and lifestyle. In current condition most of the buildings was left in deteriorate condition especially at roof and wall. This is due to due to material used (timber) which exposed to weather and deterioration. Most of maintenance work done by local community to replace any defect at the house (fig 5.7 & 5.8)

Table 5.4
Building Condition in Kampung Baru Papan

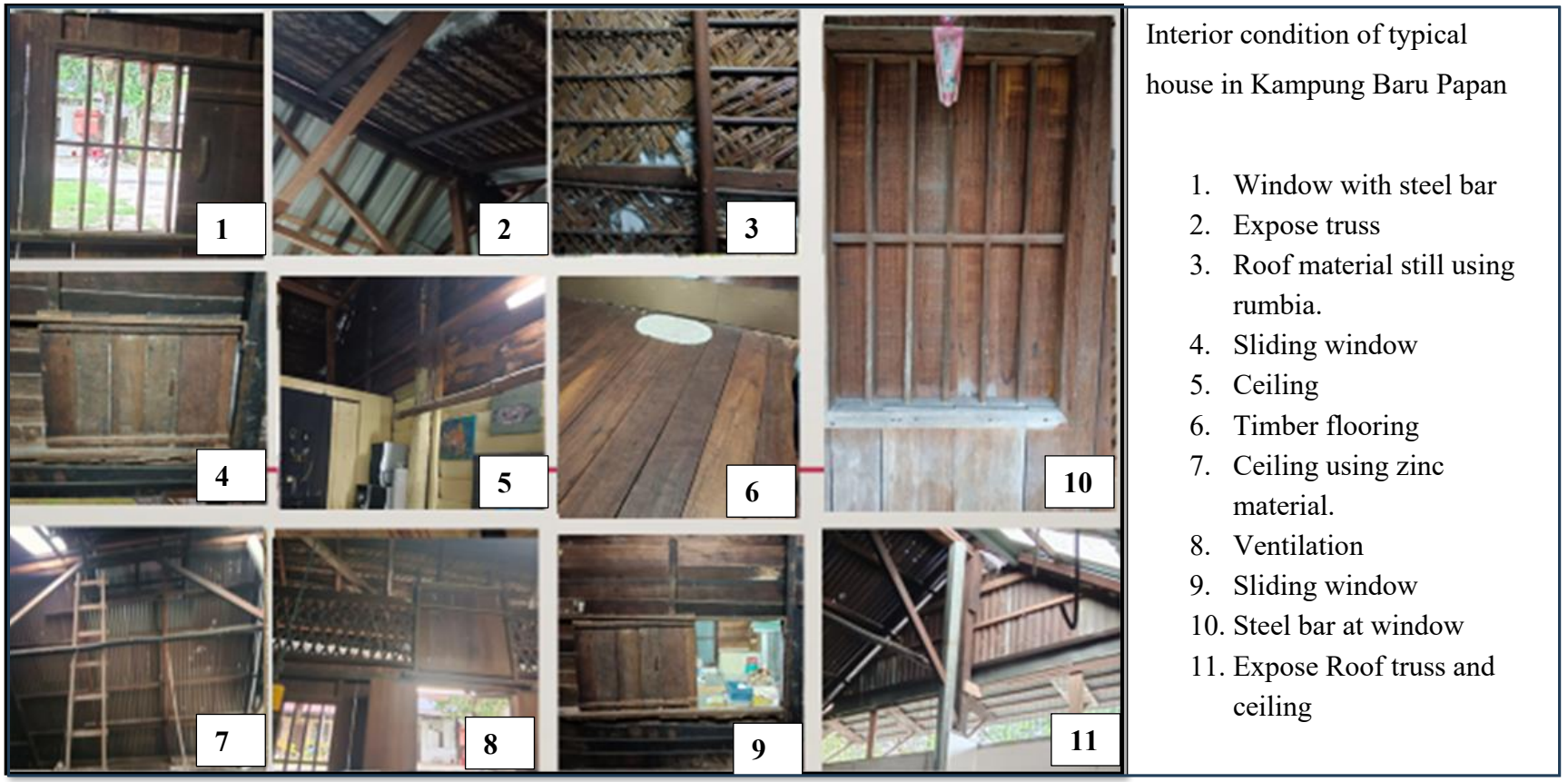
Row house (48 unit)	**Single unit house/ Single storey (20 unit)**	**Semi detach house/ Single storey (15 unit)**	**Single unit 2 storey (2 unit)**
1. Occupied and have been renovated / changes at the façade. 2. Private ownership 3. 5 unit have been used as Papan Heritage Gallery. 4. Usage mostly for residential. 5. Building in good or moderate condition 6. Original facades maintain 7. Facing middle alley/ rear side of old shophouses 8. Centre for community activities -	1. Occupied and have been renovated / changes at the façade. 2. Private ownership 3. Usage mostly for residential 4. Building in good or moderate condition 5. Original facades maintain 6. Surrounded by yard used as garden and to plant vegetables by local community	1. Occupied and have been renovated / changes at the façade. 2. Private ownership 3. Usage mostly for residential 4. Building in good or moderate condition 5. Original facades maintain	1. Occupied and have been renovated / changes at the façade. 2. Private ownership 3. Usage mostly for residential 4. Building in good or moderate condition 5. Original facades maintain 6. Some building used as local groceries store



Building condition in Kampung Baru Papan

1. Double storey single unit house
2. Row houses
3. Row Houses
4. Single storey single unit house
5. Single unit houses
6. Single storey house front area
7. Single storey house-dilapidated condition at roof.
8. Single unit house which is well maintained.
9. Middle alley between `rear of prewar shophouse

Figure 5.7 Buildings at Kampung Baru Papan



Interior condition of typical house in Kampung Baru Papan

1. Window with steel bar
2. Expose truss
3. Roof material still using rumbia.
4. Sliding window
5. Ceiling
6. Timber flooring
7. Ceiling using zinc material.
8. Ventilation
9. Sliding window
10. Steel bar at window
11. Expose Roof truss and ceiling

Figure 5.8 Interior Condition of House in Kampung Baru Papan

5.3.4 Analysis Zone 4 -Public Building

In Papan there are four unique buildings which is an important building and have historically significant and cultural heritage essence in Papan namely Guan Yi Miao temple, Yip Sei mansion, Sybil Kathiagasu Gallery and former Papan school building (Hwa Chao school) (fig 5.9). Guan Yi Miao temple was built in 1847 and rebuilt in brick in 1898 (Table 5.5). It is located along the road heading to pre-war shophouses and act as welcoming building with the attraction of its unique Chinese architecture, structure features like *dougong*, curved roof & eaves and operated until today. Yip Sei mansion is the private residence where the former residence of local tin miners, Yip Sei. This building has it's historically significant where it was a guest house and once stayed by Sun Yat Sen. The uniqueness of this building could be seen from its architectural appearance which built with in mixed Colonial, Chinese and Malay influence.

In current condition this building is still occupied by Yip Sei successor but some part of the building especially at the rear side was left in dilapidated condition. Sybil Kathiagasu gallery is the former residence and clinic of Dr Sybil Kathiagasu which is an important person during Japanese insurgency. The gallery was open on 2002 by local cultural activist, Law Siak Hong and sooner closed due to lack of donation. Another important building is the two-storey building which have been used as school namely Hwa Chao School. In term of architectural design, this building has a combination of Chinese and Colonial Architecture. This school have been closed in 80's after the opening of SRJK (Chinese) Papan and left abandon until today.

Table 5.5
Public Building Conditions in Pekan Papan

Guan Yi Miao Temple	Yip Sei Mansion	Hwa Chou Old School	Sybil Kathiagasu Gallery
1. Building in good condition 2. One of the landmarks in Papan 3. Centre of attraction and religious purpose for Chinese community in Papan. 4. Maintenance by local community and incentive from state.	1. Building in moderate condition 2. Private owner 3. Front façade is maintained but rear side is in dilapidated condition	1. Abandon 2. Rich with colonial and Chinese architecture. 3. Existing structure still maintains but interior part in dilapidated condition	1. Abandon- close due to lack of funding. 2. Rich with colonial and Chinese architecture. 3. Existing structure still maintains but interior part in dilapidated condition 4. Gallery item still remains but left in abandonment



Public building condition in Pekan Papan

1. Hwa Chao old Chinese school
2. Hwa Chao old Chinese School
3. Rear side of Hwa Chao old Chinese School
4. Yip Sei Mansion
5. Side view of Yip Sei mansion
6. Rear view of Yip Sei mansion
7. Guan Yi Miao temple
8. Gallery Sybil Kathiagasu
9. View of Gallery from Yip Sei mansion

Figure 5.9 Public Buildings at Pekan Papan

5.3.5 Analysis – Back Lane & Middle Alley

The backlane of pre-war shophouses and middle alley area is located in between the rear side of pre-war shophouses and frontage of row houses in Kampung Baru Papan. This area is the most attractive place in Papan with the placemaking and cultural activities. Papan Heritage gallery was located in of the unit at the row houses. The most important element of the backyard are the street and the backyard of the old shophouses (Table 5.6), and the rear wall of pre-war shop houses have been decorated with recycle items like bottles, baskets, lanterns, and flowerpots as a decoration along the alley(fig 5.10& 5.11). The original form of rear side of pre-war shophouses still remain with its natural plant such as banyan tree which wildly plant along wall and roof and became an attraction to tourist. Most of the rear side of the pre-war shop houses has been conserve as placemaking area, where the existing courtyard have been decorated as garden and pathway to shophouses which mostly done by the local communities. Along the street, the local community also have decorated with painting of Koi fish which relate to their belief and culture.

Table 5.6
Category Of Elements At Backlane In Pekan Papan

Category 1 Street	Category 2 Backlane of Pre-war shophouses
1. Located in between rowhouses in kampung Baru Papan and backlane of old shophouses. 2. Tar mat finishing 3. Drainage system along road 4. Provided with streetlighting in 2023 5. Used for mural painting by local community	1. Still maintain for occupied buildings 2. Abandon for abandon shophouses 3. Some converted to sculptural park by local community 4. Placemaking area 5. Mural Painting 6. Wild plant – banyan tree.



Fig 5.10 Backlane of pre-war shophouses which still maintain and abandon



Middle alley/ pre-war shophouses backlane condition

1. Mural painting at road done by local community
2. Mural painting
3. Street condition with proper drainage and street lighting
4. Backlane of pre-war
5. shophouses which still maintained.
6. Backlane of pre-war shophouses
7. Placemaking at backlane
8. Backlane which still maintain and abandon
9. Abandon backlane which fill with wild plant (Banyan tree)
10. View of middle alley in between of the backlane and

Figure 5.11 View of Backlane and Middle Alley

5.4 Analysis Architectural Detail

There are variety of architectural detail could be found at buildings in Papan consist of mix between Malay, Chinese and Colonial architecture which shows its essence of multi-cultural value. This could be seen at facade treatment from the design of column, windows, roof, and wall which still exist. The unique characteristics of building in Papan is all buildings have a combination of Malay, Chinese and colonial design from the architectural appearance. For example, the mix architecture of Malay and Chinese could be clearly seen at the roof of Yip Sen mansion where element such as *tunjuk langit* and *papan cantik* are located and the Palladian style could be seen from its column (fig 5.12 &5.13). The detail which has mix colonial, Malay and Chinese architecture also could be seen from the façade of Rumah Besar Raja Billah as a symbol of multicultural and historical value (fig 5.14 & 5.15). Masjid Papan was one of the earliest mosques built in Perak in 1888 by Raja Billah for the usage of Muslim community in Papan. The detail mostly can be seen at the roof which is *Bumbung Meru* with double tier, timber door and staircase with stone materials. In present the mosque is abandon (fig 5.16-5.18). The pre-war shop houses and Hwa Chao School shown typical mix of colonial and street eclectic style with an ornament at column and decoration at ventilation window. The tile also shown a typical Chinese decoration with a motive of insect (fig 5.19- 5.24).



Figure 5.12 Architectural Detail at Yip Sei Mansion- Gable End, *Papan Cantik* and Shingle Roof Tile



Figure 5.13 Architectural Detail at Yip Sei Mansion- Side Elevation of Building Shows Essence of Malay Architecture at Timber Balustrade and *Papan Cantik*.



Figure 5.14 Architecture Detail at Rumah Besar Raja Billah- Decoration Wall Known as ‘Si Kambing Manih’ (Suriati 2024), Colonial Essence at Pillar and Decoration at Door.



Figure 5.15 Detail of Rumah Besar Raja Billah. Most Of the Aesthetic Features Could Be Seen From the Window, and Detail Ornament at The Pillars.



Figure 5.16 Roof of Masjid Papan with Double Tier Pyramid Style.



Figure 5.17 Detail at Masjid Papan- Timber Wall, Column and Staircase.



Figure 5.18 Architectural Detail Condition- Main Door, Window, Timber Wall and Stilt.



Figure 5.19 Detail at the Pre-War Shophouses in Pekan Papan.



Figure 5.20 Detail of Hwa Chao Old Chinese School Which is Influenced By Chinese and Colonial.



Figure 5.21 Architectural Detail at Pre-War Shophouses - Timber Window, Column and Doors.



Figure 5.22 Five Footway and Arch Which is Abandon, Moderate Condition and Have Ongoing Process of Preservation.



Figure 5.23 Façade of Pre-War Shop House with Decorative Panel



Figure 5.24 Architectural Detail at Decorative Panel and Grill at Door.

5.5 Legibility Analysis in Pekan Papan

Legibility emphasizes on visibility of physical elements as interpreted by observers. Legible elements comprised of paths, edges, nodes, landmarks and district are found to influence how people identify the structure of a city. These elements are important to create city image and coherent environmental setting. (Lai Kum 2013). Bentley et al. (1985) have developed a set of guidelines which they claim make an environment responsive to the needs of its users. They do this using the following concepts: permeability, variety, robustness, visual appropriateness, richness, personalisation and legibility.

Permeability is a property of how easy it is to move through an environment and depends heavily upon the paths and objects placed within the space. There are two types of permeability: physical properties (e.g. a path) and visual appearance. For example, although a path may exist in some environment, if it is not visually obvious it may remain unused. This in turn affects the sense of place people experience in the environment. Permeability is also influenced by the nature of spaces, for example whether they permit private or public access. Variety refers to the range of activities, people and building forms which can be found in a space. The varied nature of people, forms and activities will create a range of R. McCall & al. 37 meanings and in turn the meanings may influence the variety of options available. For example, in a museum people can buy gifts, view exhibits, talk to other visitors and perhaps visit a café.

However, a virtual version of the same museum may concentrate only on aspects related to viewing exhibits, thereby altering the sense of place. As well as being shaped by the range of activities which are built into the space, variety is a product of the location of features and paths of movement. Robustness explores how a single space can be put to multiple uses. An example would be a room where changing the configuration of the furniture may lead to it becoming a lecture room, dining room or place for a Christmas party. Robustness is also influenced by temporal aspects. For example, a museum exhibit may be open only at specific times, with people queuing in order to gain access. If large groups of people are queuing then the queue may act as a meeting point, social space (as people may begin to converse) or as an area to relax prior to seeing the exhibits. However as soon as the exhibit opens then the queuing area may simply return to its original use, that of channelling and controlling movement. Visual appropriateness is how the provision of cues can support variety, robustness and

legibility, it is vital if people are to correctly interpret how to make appropriate use of an environment.

Examples of poor visual appropriateness are when buildings are identical in colour and appearance making it difficult to differentiate them. Richness relates to the range of sensory experiences available, for example sight, smell, touch and sound. It is also concerned with how the experience can have an effect on the emotional state of those visiting the place. A visual example would be the use of paths to provide a heightened sense of awareness of the environment and that something important is going to happen. Therefore, in the visual sense it is important to consider how long something can be viewed and where it can be viewed from. Personalisation is the ability we are given to customise an environment on a large or small scale. Small scale personalisation can include moving a chair in a room, large scale personalisation being the ability to change the appearance of a building. Legibility is how easy it is for a person to construct a mental map of their environment and depends to a large extent to the form of the environment and the activities people undertake. Lynch (Lynch, 1970) discusses many features such as paths, nodes, landmarks, districts and edges.

This analysis intends to examine Lynch's concept of legibility in the context of historical district in Pekan Papan. The objectives of the analysis are to identify legible elements within demarcated district from the people's identification and to understand the influencing factors on the quality of space within tangible elements of urban structure (Table 5.7). Analysis of documentations and archival records together with direct observation of the historical district of Pekan Papan were done to examine the characteristics of the historical district and the constituting elements. The method of this analysis has been discussed within Focus Group discussion as an appropriate method to identify the tangible elements and quality which related to urban forms and its quality including architectural features, cultural landscape and people activity in order to formulate the conservation strategies of Pekan Papan. The analysis found that paths and landmarks/marker are among the most recognizable elements identified by the respondents while, edges and nodes are mostly identifiable from the activity of Local people. Besides, it is evident that spaces, activities and historical factors influence the people's identification of physical features. The finding supports the need to preserve identifiable elements along the path and district and create a point of attraction such as landmarks and nodes in historical

areas and therefore making urban spaces more recognisable as attraction area within a conservation area of Pekan Papan.

Table 5.7

Legibility Analysis Inventory of Pekan Papan

Legibility element	**Form**	**Element**	**Variable & Quality**
Path	- Main road - Secondary road - Street - Back lane - River -Tin mining pond	R1- Old shophouses R2- Kampung Mandailing R3- Kampung Baru Papan R4- Backlane	Tangible Detail - Aesthetic - Accessibility - Vision - Identity Quality - Memory - Experience - Activity - Vistas - Sensory - Culture

Edges	-Arch -5 footway -Wall -Column -corner -Intersection - Axis	Urban structure/ Architecture -Shophouses -Kampung Mandailing - Kampung Baru Papan Cultural Landscape -River -Pond	Tangible - Detail - Aesthetic - Accessibility - Vision Quality - Memory - Experience - Activity - Vistas - Sensory - Culture
district	-Streets -Building - corner -Wall -Landscape	Shophouses Kampung Baru Kampung Mandailing	Tangible - Detail - Aesthetic - Accessibility - Vision

			Quality - Memory - Experience - Activity - Vistas - Sensory - Culture
Nodes	-Junction -Meet point -Square -Open area -Intersection	J1 coffee shop J2-Old shophouses J3-Kampung Mandailing J4-Kampung Baru Papan	Tangible - Built form - Detail - Aesthetic - Accessibility - Vision Quality - Memory - Experience - Activity - Vistas

			- Sensory - Culture -
Landmark/ Marker	Built Form Architecture	M1- Temple M2- Yip Sei mansion M3- Dewan Orang Ramai M4- Rumah Besar Raja Billah M5- Masjid Papan	Tangible - Detail - Aesthetic - Accessibility - Vision Quality - Memory - Experience - Activity - Vistas - Sensory - Culture

. 5.5.1 Analysis of Path in Pekan Papan

From the historical record and zoning, path in Papan have been categorized into 4 types

- R1- Old Shophouses,
- R2- Kampung Baru Papan
- R3- Kampung Mandailing
- R4- Middle Alley

The analysis of path mostly focuses on the tangible and intangible element which it could offer. The old shophouses consist of 70 rows of buildings which mainly in abandonment and dilapidated condition(Table 5.8 & fig 5.28), However, these structures are the most attractive in Pekan Papan as a post war building. The original built form and detail of strait eclectic architecture style still could be seen from its façade, roof and five-foot way (kaki lima) which run along the main road of Papan (**R1**). From observation, there are 30 units of building still occupied, 20 units occupied mostly at ground floor and 20 units totally abandon but the structure such as columns still exists. The first unit have been converted into Information centre, and the middle house have been clear as per original form for tourist to visit and look at the original form. One unit of the shophouses was a former gallery of Sybil Kathiagasu but it was closed in 90's until today (fig 5.25 & 5.26).

Kampung Baru Papan consist of row houses, single and double storey buildings which run along the secondary road in Pekan Papan (**R2**). Most of the buildings are built by timber and remain its typical Chinese domestic architecture which could be found in kampung Baru in Perak. Most of the building are still occupied by old generation where they are doing their daily activities such as planting vegetables at the front yard. The path along street (**R3)** is the location where kampung Melayu Mandailing are located. Along the path, the cultural landscape plays an important image which create the environment of Kampung Mandailing. The wall with decorative element of Mandailing Architecture were built towards Rumah Besar Raja Bilah, Rumah Asal, Masjid Papan and Rumah Bilal. This area is mostly abandoned where the buildings were left in dilapidated condition due to migration of Mandailing people (fig 5.27).

The path along middle alley (**R4**) are located at the rear of pre-war buildings of shop houses and front of row houses in kampung Baru Papan. This street is the busiest in Papa where the gallery of Papan is located. Most of the activities happened along this street where the rear side of the shop houses have been decorated as a placemaking area.



Figure 5.25 Sketch of Pre- War Shophouses as Part of Buildings with Unique Architectural Features Which Could Be Found Along Path in Pekan



Figure 5.26 Sketch of Buildings in Kampung Mandailing that Could be Found in Pekan Papan Based on Authors Observation



Figure 5.27 Path Analysis Diagram

Table 5.8

Legibility analysis (Path) in Pekan Papan

Legibility Element	**Form**	**Element**	**Quality**
Path	**Road**	**R1 (Pre-war Shophouses**  	**Tangible** Detail - 70 units (40 units vacant, 30 units abandon) built in 18th century - Sybil Kathiagasu Gallery - Street Eclectic Style - Kaki Lima - Left side more attraction - Right side between school & basketball court - 50 feet road Aesthetic - Façade- Roof, Window, Column, Ventilation, Fascia board - Wall & column decorative element Accessibility - Along main road towards Papan Herbs Park - Double frontage (direct entry to middle alley) - Within Human scale & proportion

		 	Vista - Intersection view along main road - Sense of welcoming in term of scale and height - Dramatic impact of façade Identity - Typical Chinese Shophouses (Sino Malay Palladian) - Vernacular element at roof, window, column - Still maintain original form **Quality** Memory - Historical buildings - Original features (authenticity)- Façade, construction, detail. - Historical scene Experience - Old buildings - Mysterious - Historical essence Activity - Sight seeing

			- Photography - Tourist Sensory - Dramatic impact - Lighting & ambience - Calmness Culture - Vernacular Architecture - Façade & local activities - Coffee Shop/ social - School/ education
	Road 2	R2 (Kampung Baru Papan)	**Tangible** Detail - 71units – - 1 double storey units vacant, 70 single storeys, 1-unit school, 1unit Dewan, 1-unit coffee shop - Built in 1940's - Timber construction - Yard

		 	- Double frontage - 50 feet road Aesthetic - Façade- Roof, Window, Column, Ventilation, Fascia board (typical Chinese architecture) - Wall & column simple construction Accessibility - Along main road - Double frontage (direct entry to middle alley) - Within Human scale & proportion Vista - Intersection view along main road - Sense of welcoming in term of scale and height - Dramatic impact of façade Identity - Typical Chinese house - Vernacular element at roof, window, column - Still maintain original form **Quality** Memory - Local buildings

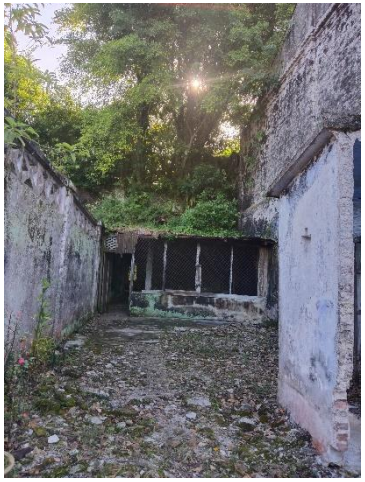
		 	- Original features (authenticity)- Façade, construction, detail. - Historical memory Experience - Old buildings - Domestic scale - Historical essence Activity - Community Activity - Photography - Tourist Sensory - Welcoming - Lighting & ambience - Calmness Culture - Vernacular Architecture - Façade & local activities - Gathering
	Road 3	**R3 Kampung Mandailing**	**Tangible** Detail - 1-unit Rumah Besar Raja Billah,

		 	- 1-unit Rumah Asal, - 1-unit Masjid Papan, - 1-unit Rumah Bilal - Built in 18th century, preservation work in 1993 - Timber & concrete construction - Wall & square - Cluster arrangement - Street, courtyard & denai Aesthetic - Façade- Roof, Window, Column, Ventilation, Fascia board (typical Colonial & Mandailing Architecture) - Wall & column, decorative element, Papan cantik Accessibility - Along street towards courtyard - Within Human scale & proportion Vista - Intersection view along denai & courtyard - Sense of welcoming in term of scale and height - Dramatic impact of façade - Topography- hilly area

		 	Identity - Typical Colonial & Mandailing Architecture - Islamic Architecture - Vernacular element at roof, window, column - Still maintain original form **Quality** - Memory - Local buildings - Original features (authenticity)- Façade, construction, detail. - Historical memory - Experience - Old buildings- Mandailing/ Islamic - Domestic scale - Historical essence- Kampung Activity

			- Community Activity - Photography - Tourist - Historical research Sensory - Welcoming - Lighting & ambience - Calmness Culture - Vernacular Architecture - Façade & local activities - Gathering
	Road 4	**R4 (Middle Alley/ Backlane)** 	**Tangible** Detail - 47 units rowhouse, back lane of old shophouses - Built in 1920 - Timber & concrete construction - Wall & square - Linear arrangement - Street, courtyard Aesthetic

		 	- Façade- Roof, Window, Column, Ventilation, Fascia board (typical Chinese Architecture. - Simple timber construction - Rear elevation of old shophouses Accessibility - Along street towards frontage of house & rear side of Shophouses - Within Human scale & proportion Vista - Clear view along street & façade - Sense of welcoming in term of scale and height - Dramatic impact of façade Identity - Typical Chinese & colonial Architecture - Vernacular element at roof, window, column - Still maintain original form - Placemaking area (wall & street decoration) **Quality** Memory - Local buildings

		 	- Original features (authenticity)- Façade, construction, detail. - Historical memory of cultural activity Experience - Old buildings- rear side of shophouses - Domestic scale - Historical essence- Activity - Community Activity - Photography - Tourist - Historical research (Gallery) Sensory - Welcoming - Lighting & ambience - Calmness Culture - Vernacular Architecture - Façade & local activities - Gathering - Education

5.5.2 Analysis of Edge and District in Papan

Edges and district consist of linear breaks in continuity, barriers, more or less penetrable, that can close one region off from another or join them together and Two-dimensional extent and are very common Formal division of city area (Bentley 1985). Legibility factor from edges & district at Pekan Papan have been chosen from axis and intersection of roads and corners of main built forms which shows architectural detail of buildings such as column, architrave and arches which define the image of buildings. Based on the historical record and layout, Pekan Papan could be separated to three main built forms which is the Pre-war shop houses, Kampung Mandailing and Kampung Baru. From the road intersection of main road shows the beginning of pre-war buildings on both side starting from the mansion until the rows of pre-war shop houses which shows its homogeneous and strong character of historical buildings. The Mandailing community area started from the road intersection where the Chinese houses ended. The Wall which surrounded Rumah Besar Raja Billah act as corner and strong character as edges and district of Kampung Mandailing. Edges and district of Kampung Baru Papan started from the rear side of pre-war shop houses. The different image scale and architectural detail create an understanding of the character within the area. Most of built forms in Kampung Baru consist of single storey houses which built from timber with simple architectural detail. The middle alley which separated the rear side of pre-war shophouses, and front of timber row houses have created a district with strong path themes. The different view from both side in between the middle alley have created a choice which make the district a strong character (Table 5.9, fig 5.28,5.29 &5.30).



a



b

Figure 5.28 Sketches of Corner & Meet Point at Pre-War Shophouses (A) And Backlane (B) which Create Strong Edges & District In Papan

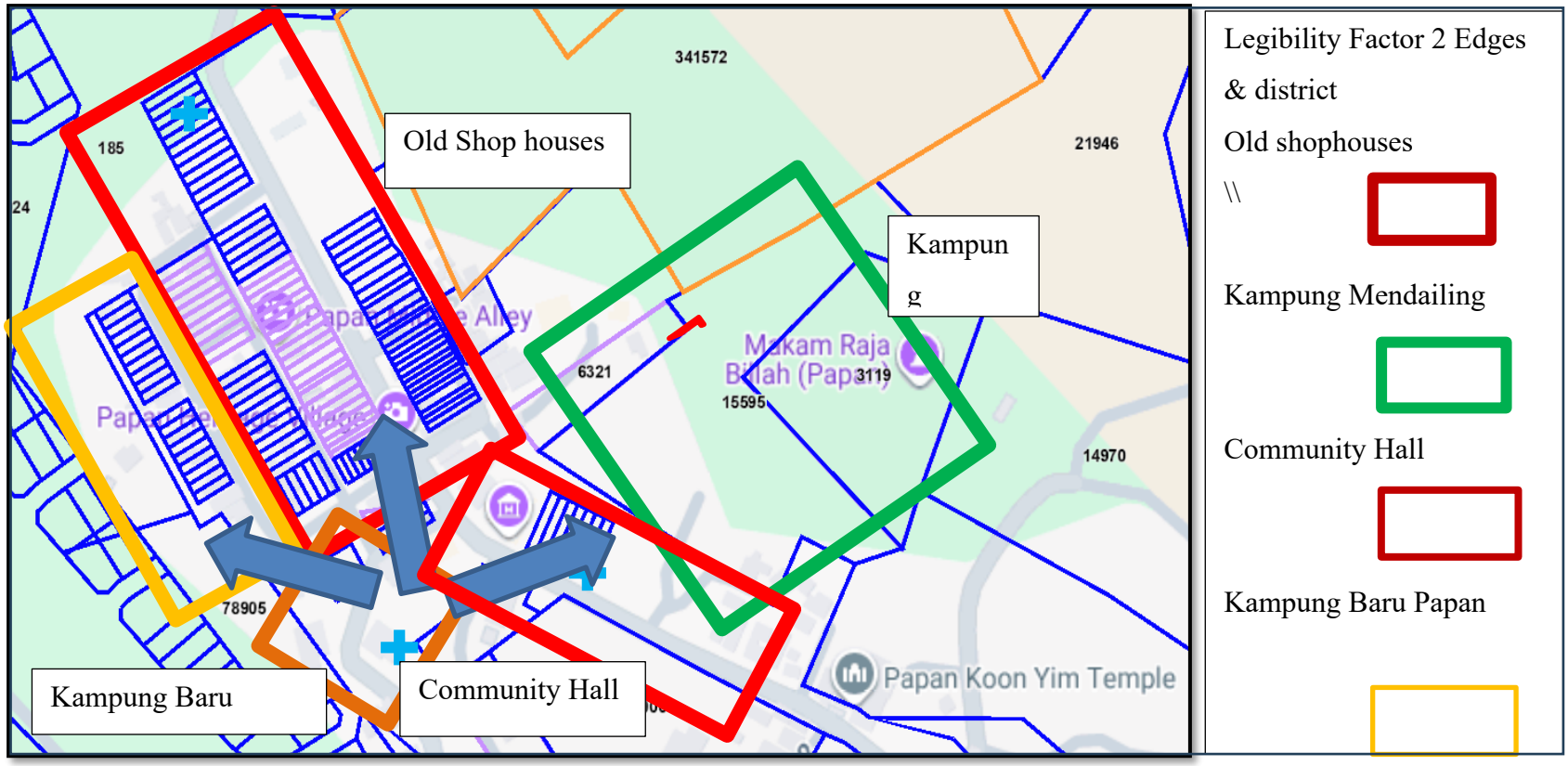


Figure 5.29 Edge and District Analysis Diagram



Figure 5.30 Aerial View Shows Edges and District in Pekan Papan and Kampung Mandailing Along Built Form Which Creates a Strong Boundary for People to Recognize its Entity.

Table 5.9

Legibility Analysis (Edges & District at Pekan Papan)

Legibility element	Form	Element	Quality
Edges & District	Axis & Intersection Sungai Johan Forest reserve Yip Sei mansion	 	Tangible Detail - River (Sungai Johan) - Natural Topography (Road boundary) - Buildings - Road intersection Aesthetic - create a skyline along Façade- Roof, Window, Column, Ventilation, Fascia board Accessibility - Along street towards hillside, road & street & frontage & rear side of Shophouses - Within Human scale & proportion Vista - Clear view along street & façade

			Identity - Sense of welcoming in term of scale and height - Dramatic impact of façade - Typical Malay. Chinese & colonial Architecture - Vernacular element at roof, window, column - Still maintain original form

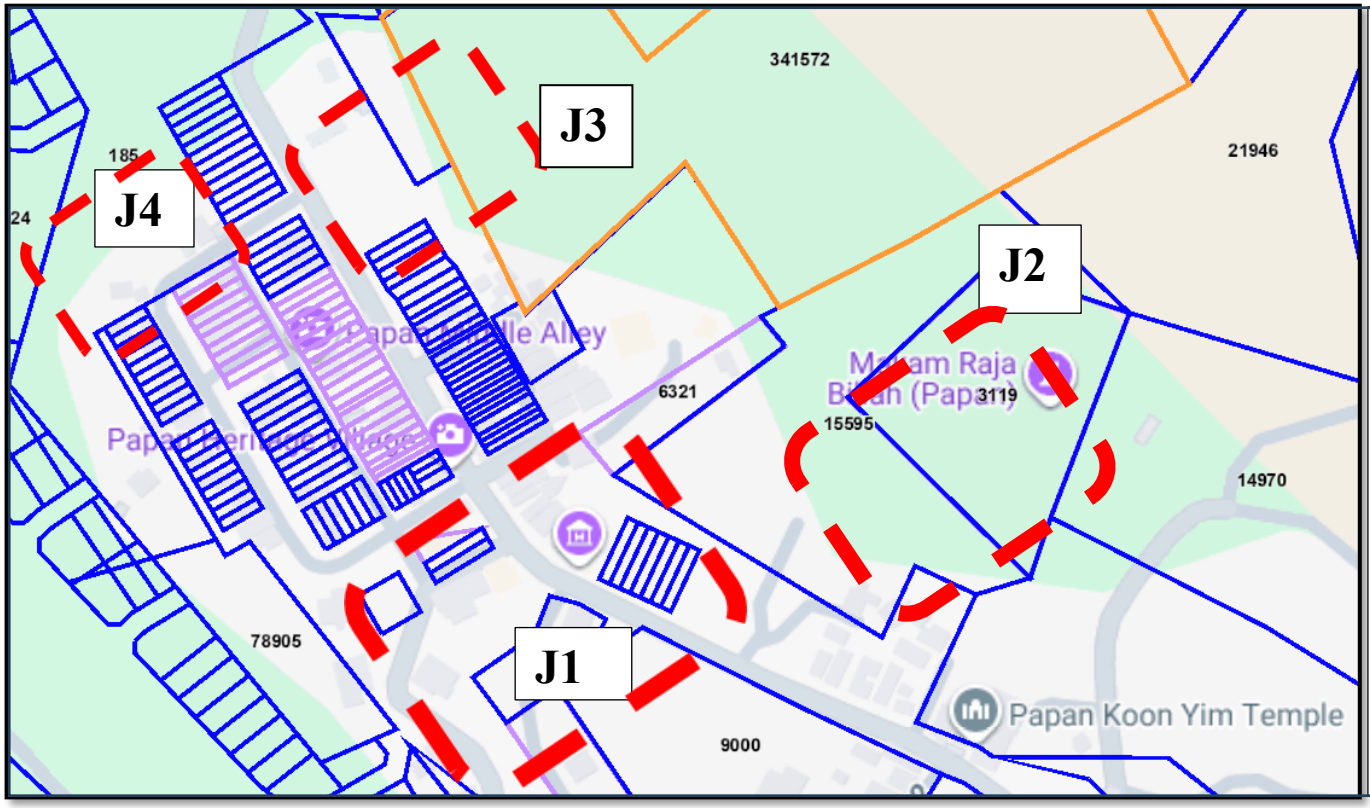
	Corner Old shop houses Yip Sei Mansion Old Shophouses	 	Quality Detail - Corner of shophouses - Wall & Gate - Different scale & Height - Built form (historically record) Aesthetic - Façade- Roof, Window, Column, Ventilation, Fascia board (typical Chinese) - Wall decoration & motive - Different built form Accessibility - Easy to view and approach - Sense of identity as a sense of welcoming - Within Human scale & proportion Vista - Clear view along street & façade - Sense of welcoming in term of scale and height

	Kampung Mandailing Rumah Besar Raja Billah gateway		- Dramatic impact of façade - Typical mix of Malay, Chinese & colonial Architecture - Vernacular element at roof, window, column Still maintain original form
	Backlane/ middle alley		Quality Memory - Local buildings - Buildings with different timeline - Cultural landscape - Original features (authenticity)- Façade, construction, detail. - Historical memory of cultural activity Experience

		 	- Pre-War Buildings- rear side of shophouses - Domestic scale - Variety of identity (Royal ethnicity, domestic) - Historical essence- Activity - Community Activity - Education - Tourist Sensory - Welcoming - Lighting & ambience - Calmness Culture - Vernacular Architecture - Façade & local activities - Gatherin

5.5.3 Analysis of Nodes in Pekan Papa

Nodes consist of Junctions, crossing or convergence of paths and moments of shift from structure to another (Bentley 1985). Nodes in Pekan Papan can be found at open space at junction and landscape area and intersection of axis and building forms create the meeting point and directions. From the historical record and zoning, junction in Pekan Papan have been separated into four parts which is **J1** (Pre-war Shophouses), **J2** (Kampung Mandailing), **J3** (basketball court) and **J4** (Kampung Baru Papan) (fig 5.31). **J1** is the road intersection where the frontage of temple is located until the main road where the old shophouses is located.The car park and structure of opera house create a strong character as meeting point and spatial activities. The coffee shops and Community Hall create a specific function at the road intersection as a great spatial emphasis in order to main the congruence between legibility of use and legibility of form. The street along the backlane create an intermediate pace between rear side of old shophouses and rowhouse of Kampung Baru Papan where it becomes a community activity and gathering space. Intersection of roads towards Kampung Mandailing ended at open area **J2** in between Masjid Papan, Rumah Besar Raja Billah and Rumah Bilal. The sense of enclosure surrounded by buildings with same architectural typology have create an understanding to public for the spatial emphasis to be a Kampung territory. The road along main road, the existing basketball court and SRJK (Chinese) Papan also play an important node in Pekan Papan **J3** create an intermediate pace between the old shophouses and open space towards the nice view towards mining pond no 2 where it becomes a community activity and gathering space. The end of junction from Kampung Baru Papan towards tin mining pond **J4** created a strong node where this area is the location of tin mining no 1 where the body of tin mining dredge is located (Ref table 5.10, fig 5.32- 5.33)



5.5 LEGIBILITY FACTOR 3 – NODES

J1 Meeting point Pre-war shophouses, community hall– Community Hall, coffee shop & backlane

J2 Meeting point Rumah Besar Raja Billah, Masjid Papan & Rumah Bilal

J3 Meeting point- pre-war shophouses, Basketball court, SRJK (Chinese) Papan & tin mining pond 2

J4 Kampung Baru Papan & tin mining

Figure 5.31 Nodes Analysis Diagram at Pekan Papan

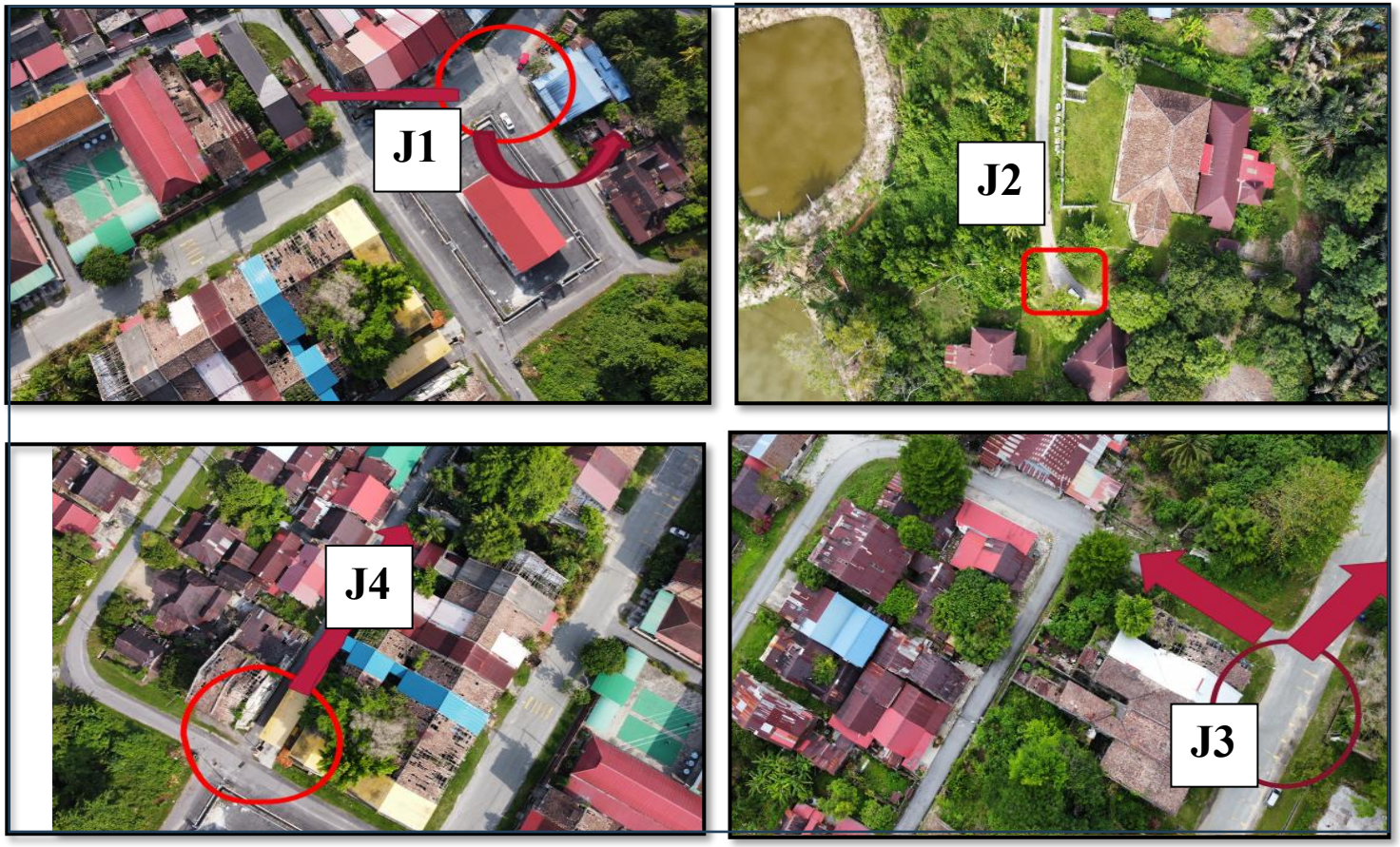


Figure 5.32 Nodes in Papan Based on Corners. Junction And Meet Point



Figure 5.33 Aerial View Show Nodes, a Meeting Point which Could be Recognized in Pekan Papan

Table 5.10

Legibility Analysis (Nodes) of Pekan Papan

Legibility element	**Form**	**Element**	**Quality**
Nodes J1	- Pre- War Shop houses Community Hall & coffeeshop		Tangible Aesthetic - Façade- Roof, Window, Column, Ventilation, Fascia board - Ornament & Decoration - Accessibility - View towards corner & edges of buildings. Vista - Clear view of from street & façade - Sense of welcoming in term of scale and height - Dramatic impact of corner & facade
Nodes J2	- Kampung Mandailing		

	- Masjid Papan - Rumah Bilal Pre-war shophouses		Identity - Typical Malay. Chinese & colonial Architecture - Vernacular element at roof, window, column - Still maintain original form
Nodes J3	- Basketball court - SRJK (Chinese Papan) - Tin mining pond 2		
Nodes J4	- Kampung Baru Papan - Tin Mining Pond		

	Quality of Physical element	 Coffee Shop  Kampung Mandailing	- Quality - Memory - historical buildings - Buildings with different timeline - Original features (authenticity)- Façade, construction, detail. - Historical memory of cultural activity Experience - Pre-War Buildings- rear side of shophouses - Domestic scale. Variety of identity (Religion, ethnicity, domestic) - Historical essence Activity - Community Activity - Education - Tourist - Gathering Sensory - Welcoming

		 Back lane  Kampung Baru Papan- Tin mining pond	- Lighting & ambience - Calmness Culture - Vernacular Architecture - Façade & local activities - Local identity - Local lifestyle - Historical value

5.5.4 Analysis of Landmark/ Marker in Pekan Papan

Landmark mean Penetrable, external, used as external visual reference as a marker for its own legibility (Bentley 1985). Most of the landmark in Pekan Papan could be seen from the uniqueness of built form, architectural detail and usage. From the historical records and building usage, most of the landmark in Pekan Papan shown its multicultural value which show the image of Chinese and Malay culture. Kun Min Temple which located at the starting point of main road and surrounded by Chinese cemetery shows the uniqueness of Chinese architecture and play an important role as centre for religious activities in Papan.

The detail of the façade shown its uniqueness and image of Pekan Papan. Yip Sei mansion is the second landmark which created a unique architectural image as a starting point of pre-war shop houses along the main road. Sybil Kathigasu gallery building was once centre of attraction in Pekan Papan play as a marker and public relevant uses which shows its own legibility but in present it was abandon and the building is left in dilapidated condition. Rumah Besar Raja Billah and Masjid Papan (built in 1888 and 1889) are the main buildings which create a landmark at Kampung Mandailing area. The location which are visible from the path with its unique architectural features could be seen from the roof design have created as an additional marker to achieve its legibility in Pekan Papan. The uniqueness of Mandailing architecture (*Bagas Godang*) could be seen from its front façade which located at upper hill part of side. The scale of Masjid Papan especially the roof (Bumbung atap Meru) shown the markers for people to understand as a religious purpose (table 5.11, Fig 5.34 -5.35).

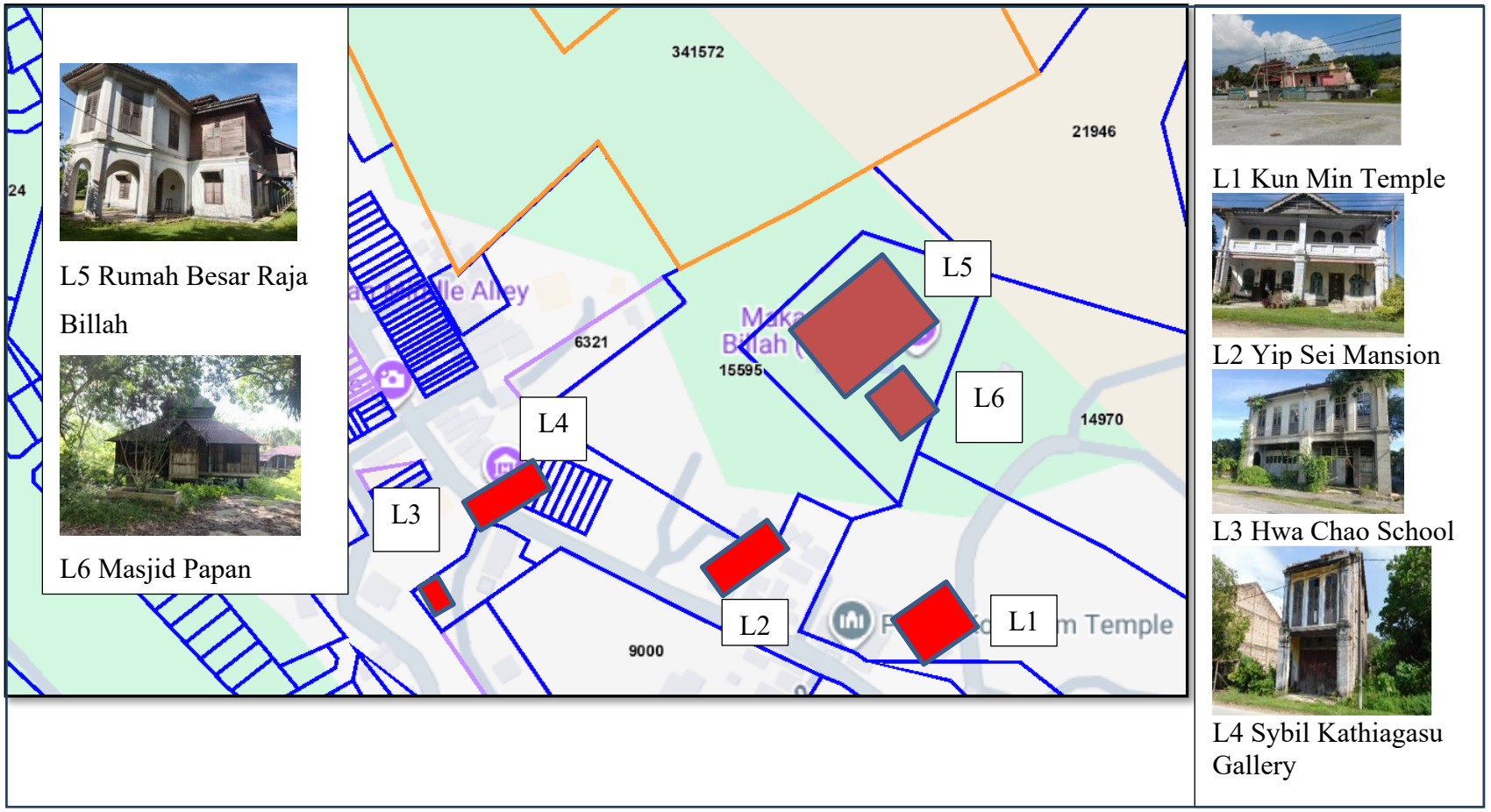


Figure 5.34 Diagram of Landmark Analysis in Pekan Papan



Figure 5.35 Aerial View of Landmark in Kampung Mandailing

Table 5.11

Legibility Analysis (Landmark) in Pekan Papan

Legibility Factor	**Form**	**Element**	**Quality**
Landmark/Marker	Zone 1	 L1 Kun MinTemple	Tangible Detail - Kun MinTemple - Yip Sei Mansion - Hwa Chao old school - Sybil Kathiagasu Gallery Aesthetic - Façade- Roof, Window, Column, Ventilation, Fascia - Accessibility - Along street towards frontage of house & rear side of Shophouses

		 L2 Yip Sei Mansion 	- Within Human scale & proportion Vista - Clear view along street & façade - Sense of welcoming in term of scale and height - Dramatic impact of lighting Identity - Typical Chinese & colonial Architecture - Vernacular element at roof, window, column - Still maintain original form

		L3 Sybil Kathiagasu gallery  L4 Hwa Chao School	

	Zone 2	 L5 Rumah Besar Raja Billah 	**Tangible** Detail - Rumah Besar Raja Billah - Masjid Papan Aesthetic - Façade- Roof, Window, Column, Ventilation, Fascia board Accessibility - Mid-point of view - View approach from distance - Within Human scale & proportion Vista - Clear view along street & façade

		L6 Masjid Papan	- Sense of welcoming in term of scale and height - Dramatic impact of façade Identity - Typical Malay, Chinese & colonial Architecture - Vernacular element at roof, window, column (wall & street decoration)
	Quality of physical elements		Memory - Local buildings - Original features (authenticity)- Façade, construction, detail. - Historical - Memory

		 	Experience - Monumental buildings - Ethnicity image- Mandailing/ Islamic, Chinese, Colonial - Domestic scale - Historical essence - Community Activity - Photography - Tourist attraction - Historical research Sensory - Welcoming - Lighting & ambience

			- Calmness Culture - Vernacular Architecture - Façade & local activities - Gathering

5.6 Analysis of Cultural Landscape Element

Pekan Papan nested in between the highland of Gunung Hijau and the Kledang Saiong forest reserve on the north and east and Sungai Johan which flowed from north to south was the main source of water, which create the natural landscape in Papan. The cultural landscape in Papan could be divided into natural which is the existing topography and manmade which is the mining pond functionally to balance the environment in Pekan Papan (fig 5.36 & 5.37). The built environment within Pekan Papan itself have created variety of landscape which relate to urban structure and the community usage. At pre-war shop houses the man-made landscape such as palm trees and ground cover still remain at the front side of buildings. Due to abandonment, most of the buildings were left in dilapidated condition and allowed wild trees to plant against the wall such as banyan trees which create a horrific mood to surroundings. However, in present this situation has become an attraction to the public. The cultural landscape in Kampung Mandailing still remain its originality where Rumah Besar Raja Billah is located at higher ground as a landmark factor and surrounded with natural plant which create a nice ‘kampung environment’. Man-made landscape could be found mostly at Kampung Baru Papan where garden, vegetables and fruits are planted at the house yard for food supply and as a beauty and placemaking at the rear side of pre-war shop houses .

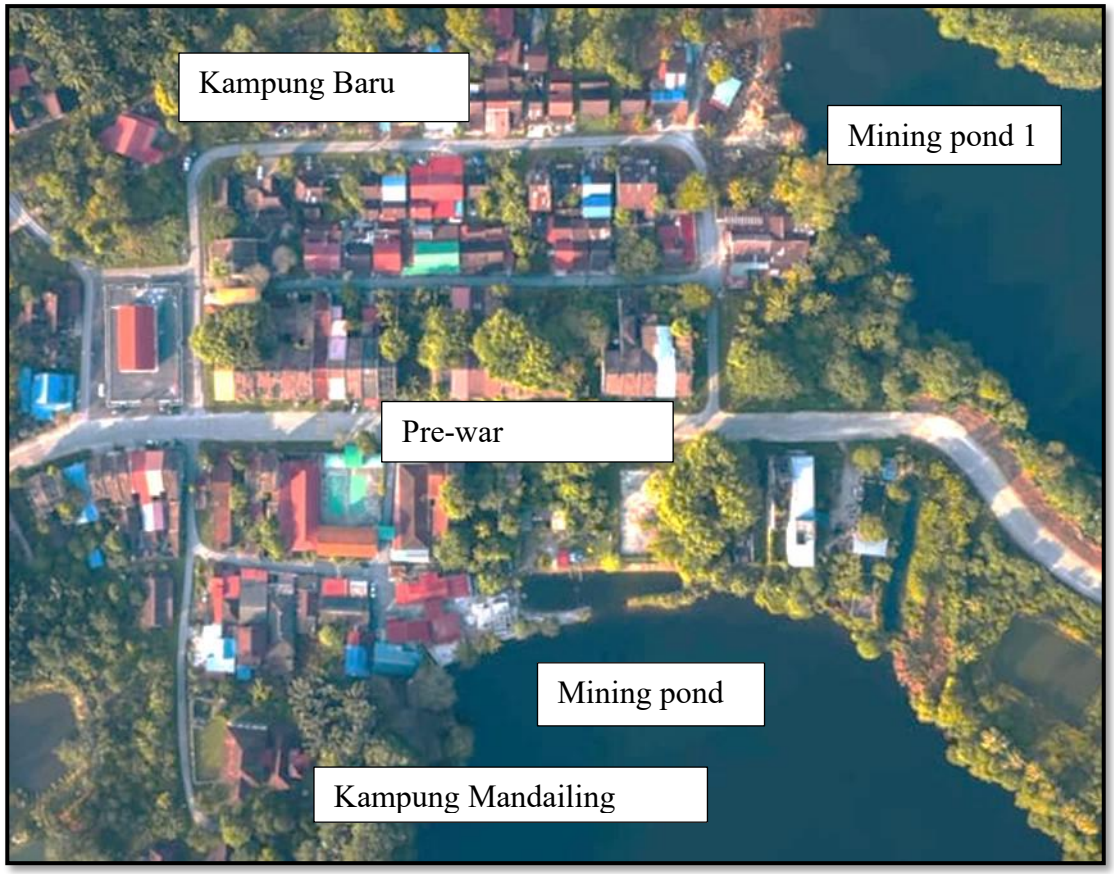


Figure 5.36 View Shows Tabulation of Green Area and Mining Pond Which Create Cultural Landscape in Pekan Papan



Figure 5.37 The Cultural Landscape in Pekan Papan, - Natural Landscape Such as River and Man-Made Landscape At Mining Pond and Building

5.7 Analysis of Cultural Activities in Papan.

Since the end of tin mining activities in the 80's many people have migrated and left Papan in dilapidated condition until now. From the records there's only 500 people left where most of them are old people who take their daily activities as farmers (fig 5.40). There are also new generations who live in Papan but working outside such as Pusing, Menglembu and Ipoh. This could be seen at the existence of SRJK (Chinese) Papan which operated until today. In present Papan remain as a mysterious and calm town with daily local activities until 2019 where Papan have opened it windows to public due to Kampung Baru Papan have been proposed as World Heritage Village under UNESCO in 2023 (Suriati 2024) Since then Pekan Papan have become a place of attraction for various purpose such as tourist, education, and film making who have interest of the historically significant and the authenticity of Pekan Papan (fig 5.38). Most of these activities are arranged by local community led by Papan Heritage group which stationed at one of the units at Kampung Baru Papan. Since the nomination, many parties have shown their interest to develop Papan. Pekan Papan have been given a road name by local authority (MDBG) and other infrastructure such as signage, street lighting and road resurfaces however the development only focus mostly at the pre-war buildings and Kampung Baru area. In present Kampung Mandailing seems to be left behind and from interview this happens due ownership problem. However, many efforts have been done to create awareness especially to the Mandailing clan on the potential of Papan and collaborate with the people in kampung Baru Papan to be developed as a new tourist area in Perak (ref fig 5.39-5.44).



Figure 5.38 Cultural Activities at Pre-War Shophouses which Mostly Involve Tourist Activities where the Existing Original Façade of Buildings Becomes The Main Attraction.



Figure 5.39 Daily Activity of Local Community



Figure 5.40 Community Activities at Abandon Buildings and Cultural Landscape



Figure 5.41 The Existing Ruma Besar Raja Billah and Masjid Papan Which is Abandon but Yet Still Become a Tourist Attraction in Pekan Papan.



Figure 5.42 Education and Promotion Activities Arranged by Local Community at Papan Heritage Gallery



Figure 5.43 Conservation Work Done by Local Community and Collaboration with Academic Institution



Figure 5.44 Art and Awareness on Conservation Among Young Generation in Pekan Papan.

5.8 Analysis from In Depth Interview

In depth interview involved three categories of respondents i.e. (i) The local community or the knowledgeable population of the study area and (ii) Expertise on the conservation (iii) Visitors who have interest in Pekan Papan. The local community's opinions and perception of the conservation strategies is crucial as the group living in the vicinity has a profound knowledge of the study area (Alfrey 2010; Alizadeh 2005; Manley & Guisse 1998). Through an in-depth interview technique, information has been obtained on physical elements that contribute to the existing town condition as well as information on historical background and heritage, way of life, culture and evolution of such (Alizadeh 2005). This is because History and heritage are an important aspect that contributes to the place character. The second respondent consist of officers from local authorities, academicians, historian and visitors which have experience in conservation works especially in Perak and who have interest in Pekan Papan. They were chosen to give different insights and views of the image and physical character of the local community (Tuan 1974; W Ismail 2009). From these 21 respondents, 3 categories are separated to in depth question on their opinion which mostly on their opinion on the conservation of Pekan Papan (table 5.12 - 5.15 & fig 5.45).

Table 5.12

Category Of Respondent from In Depth Interview

Respondent	**Type of questionnaire**	**Expected outcome**
R1, R3, R6, R7, R8, R9, R15, R 16, R17	- Experts - Conservation - Action - Awareness	- Conservation strategies - Action oriented - Academic - Local Authority action - Historical significant

R2, R4, R5, R10, R11, , R13, R18	- Local People - Local opinion - Existing condition - History - Local lifestyle	- Conservation strategies - Action oriented - Collaboration - Local needs - Cultural heritage
R12, R14, R19, R20, R21	- Visitors - Outsider opinion	- Conservation effort - Interesting features - Aesthetic and History value

Table 5.13

Outcome From In Depth Interview (Experts in Academic and Field)

Analysis In Depth Interview with experts based on academic background and field experience from industry and academic sector.

Respondent	**Position**	**Outcome summary**
R1	Pn Mas Ayu/ Officer at Jabatan Warisan Negara (JWN)	JWN will take an effort to create a dossier for Papan since it is nominated for UNESCO. However, it should be participating with local authority and in future conservation work should consider its authenticity.
R3	Mr Sundra Lingam/Officer Majlis Daerah Teluk Intan (MDTI)	Papan have its own uniqueness if compared to another old town like Teluk Intan. Therefore, any conservation effort should remain its aesthetical physical features.
R6	En Shah/Officer Majlis Daerah Batu Gajah (MDBG)	Some action has been taken by MDBG such as appointed a consultant to make proposal on the conservation of Papan.
R7	Khoo Salma Nasution /Historian	Pekan Papan could maintain its authenticity but needs many expertise participations in order to maintain its form especially the building structure.
R8	Hisham/Historian/ School Teacher / Perak Heritage Society (PHS)	Papan could be a model of old town with unique multicultural value. Therefore, it needs participation

		from all parties from Mandailing and Chinese as the caretaker.
R9	Abdul Razzaq Lubis, Book Author/ Mandailing	The conservation method in Papan should recall back all the memories which involved the great era of Papan in the 18th century
R15	Dr Afzanizam Muhammad Lecturer / Interior Architecture/ UiTM Perak.	Participation from academician are very important especially to preserve buildings with historically significant such as Rumah Besar Raja Billah, Masjid Papan and pre-war shop houses.
R16	Dr Suriati Ahmad/Lecturer / Landscape/ UiTM Perak	Papan have its unique cultural landscape which harmonically blend together with the existing built environment. Therefore, participation from all parties especially expertise is important to avoid any over development which could destroy the originality of Pekan Papan.
R 17	En Yusof/ editor/ Ipoh/ Papan Coffee table	Pekan Papan have its unique historical value from his experience producing Papan Coffee table book under Jabatan Perancang Bandar & Daerah Perak (JPBD). Therefore, Papan should have its own museum to keep all this valuable record.,

Table 5.14

Outcome of In Depth Interview with Experts from Local Community

Analysis in depth interview with experts from local community		
Respondent	**Position**	**Outcome Summary**
R2	Ms Ellie Ng, Local artist	Any effort on conservation or re-development of Papan should respect the original condition and the cultural heritage of the place. Overdevelopment should not be allowed.
R4	Mr Chang/ Local resident	Needs local opinion in term of conservation. Most of the building condition especially the pre-war shophouses are quite fragile. Therefore, better to maintain to its original function.
R5	Mr. Law/Local resident	Papan needs special design in term of conservation due to its uniqueness. It could not be the same with another town like Ipoh, Taiping or Penang.
R10	En Azwan/Mandailing	Sponsorship or fund is very important in order to maintain or preserve the Mendailing kampung

		especially Rumah Besar raja Bilah and papan Mosque.
R 16	Jacky Chew, / Director PHG	Papan should maintain its authenticity in term of conservation. Proper management is important and must involve local community who know the best things for Papan.
R 13	Ms Leong/ Local resident/ JKKK	Many efforts have been done from JKKK to promote Papan as interesting area in Perak. Participation and collaboration with local people are important for any decision on conservation effort from NGO or local authorities.
R 18	Pn Hafidzah /Mandailing	Am effort should be done especially to create awareness for Mandailing people to preserve the kampung area which start to deteriorate.

Table 5.15

Outcome Of In-Depth Interview with Experts from Outsiders & Visitors

Analysis in depth interview with experts (outsiders and visitors)		
Respondent	**Position**	**Outcome summary**
R12	Mak Esah/hawker/visitor/ Pusing	Pekan Papan was known as abandon and haunted place. Since 2019 when Papan Heritage walk arranged, it have opened its view to public. Her memory of how merrier Pekan Papan when she was kid and should be conserve.
R 14	Malik Samsudin/ Town Planner/Visitor / Kampar	The pre-war shophouses shown the well planning system and rich with aesthetic and historical value. Sad to see if it is left abandon and soon demolish.
R 11	Philippe Duran / Photographer/ Belgium	Have published his book (Papan Moods) focusing the aesthetic photography of Papan. Would like to see Papan to remain its authenticity if any conservation action taken.
R 20	Dzulkhairi/ Interior designer/Visitor/ Hulu Langat	All buildings in Pekan Papan have its unique interior features which show its multicultural value. However, it should maintain its originality in any conservation effort.

R21	Fahmi/ architect/Visitor/ Muar	Papan have its own uniqueness compared to another old town such as Muar etc. Therefore, it should remain its identity.



Figure 5.45 In Depth Interview Session Held at Papan Heritage Gallery and Dewan Orang Ramai Papan.

5.8.1 Outcome From in Depth Interview

From In depth interview session three categories of respondent have involved in this session (i) The local community or the knowledgeable population of the study area and (ii) Expertise on the conservation (iii) Visitors who have interest in Papan. The main objective of this session is related to the understanding and opinion on the awareness to conserving Papan based on their knowledge and experience. The first group respondent involved nine (9) respondents who have expertise, knowledge and experience on heritage and conservation. The questionnaire involved issues regarding historical significant, action from their organization and appropriate conservation strategies for Pekan Papan. The first respondent involved Pn Mas Ayu (R1), an officer from Jabatan Warisan Negara (JWN) who have experience doing conservation work with Pekan Papan especially on the gazetting Rumah Besar Raja Billah as national heritage entity. She informed JWN will take an effort to create a dossier for Papan since it is nominated under UNESCO. However, it should have participation from local authority (MDBG) in future conservation work and should consider its

authenticity. In present any projects involving Pekan Papan mostly involved commercial development, but the authenticity of the town has been ignored.

According to Mr Sundra Lingam, an officer from Majlis Daerah Teluk Intan (R3), Pekan Papan have its own uniqueness if compared to another old town like Teluk Intan. Therefore, any conservation effort should remain its originality and aesthetical physical features. According to En Shah (R6), Officer from Majlis Daerah Batu Gajah (MDBG), actions has been taken by MDBG such as appointing consultant to make proposal on the conservation of Papan which relate to MDBG Local Plan 2025 in order to create Papan as one of the tourist attraction areas in Perak. Madam Khoo Salma Nasution (R7), a historian and have written articles on the conservation awareness for Pekan Papan informed Pekan Papan could maintain its authenticity but needs many expertise participations in order to maintain its form especially the building structure. In present the current structure especially at the old shophouses is quite fragile and create an issue on what kind of development that could be done. En Hisham Muhammad (R9), a schoolteacher and officer at Perak Heritage Society informed Pekan Papan could be a model of old town with unique multicultural value.

However, in present the effort was mostly done by Chinese community especially who live in Kampung Baru Papan. Kampung Mandailing seems have been left since most of the successors live outside Papan and the caretaker of Rumah Besar Raja Billah have passed away. Therefore, the conservation effort needs participation from all parties from Kampung Baru Mandailing and Kampung Baru Papan to manage Papan. En Abdul Razaq Lubis (R15), a book author who have spent his childhood in Pekan Papan informed the conservation method in Pekan Papan should recall back all the memories which involved the great era of Papan in the 18th century. Based on his experienced who live in Papan in the 50's, the town have developed with its complete facilities but maintaining its harmonious multicultural bonding between Chinese and Mandailing. It is sad to see the town have been abandoned especially on what happened at Kampung Mandailing. Dr Afzanizam Muhammad (R16), lecturer from UiTM Seri Iskandar informed about the important of participation and involvement from academician who have expertise and knowledge about heritage and built environment especially to preserve buildings with historical significant such as Rumah Besar Raja Billah, Masjid Papan and pre-war shop houses and to avoid any over development on this place. Dr Suriati Ahmad (R17), Lecturer from UiTM Perak who have written many articles and papers about tin mining in Perak informed Papan have

its unique cultural landscape which harmonically blend together with the existing built environment, therefore participation from all parties especially expertise is important to avoid any over development which could destroy the originality of Pekan Papan. En Yusoff Ismail informed based on his experience as one of the researchers producing Papan Coffee table book under JPBD, Pekan Papan have its unique historical value especially involving multicultural factor, therefore, Pekan Papan should have its own museum to keep all this valuable record.

The second group respondent involved seven (7) respondents who have expertise, knowledge and experience living in Pekan Papan. The questionnaire mostly involved on their opinion about conservation effort in Pekan Papan. In conclusion, most of the respondent have informed that any effort on conservation or re-development in Pekan Papan should respect the original condition and the cultural heritage of the place. Pekan Papan should be conserved due to its uniqueness and could not be the same with another town like Ipoh, Taiping or Penang. Since most of the buildings especially the old shophouses are quite fragile in term of structural stability. during conservation process, opinion from local people is important in order to avoid over development Sponsorship or fund is also very important in order to maintain or preserve the Mandailing kampung especially Rumah Besar Raja Billah and Masjid Papan. Pekan Papan should maintain its authenticity in term of conservation where proper management is important and must involve local community who know the best things for Papan. In present, many efforts have been done from JKKK Papan to promote the town as interesting area in Perak. Participation and collaboration with local people are important for any decision on conservation effort from NGO or local authorities., therefore an effort should be done especially to create awareness for Mandailing people to preserve the kampung area which start to deteriorate.

The third group involved five (5) respondents from outsiders or visitors who have knowledge about built environment and who have experience working in Pekan Papan. In summary, Papan was known as an abandon and haunted place but since 2019 Papan have opened its view to public. Due to the event done by local community, from this experience visitors have an understanding and exposure on the built form in Pekan Papan especially the pre-war shophouses which shown the well planning system and rich with aesthetic and historical value. In present condition it is sad to see it was left abandon and soon could be in situation to be demolished. However, as a conservation awareness, people would like to see Pekan Papan to remain its

authenticity if any conservation action taken due to its unique interior features which shows its multicultural value and have its own uniqueness compared to another old towns. Therefore, it should remain its identity.

5.9 Analysis from Focus Group Discussion

Focus group discussion was held on two sessions on 16/9/2023.The first one was held with local people at Pekan Papan involving visitors who came for Papan Heritage Walk 2023 and Malaysia day celebration. Second one was held with 10 panel of expertise from industry and academic institution which held at Hotel D Iskandar, Sri Iskandar on the evening session. (Table 5.16-5.18) & (fig 5.46 & 5.47)

Table 5.16

Distribution Of Panel for Focus Group Discussion

	Panel of expertise	**Position/ expertise**
C	Chairman- Assoc Prof Dr Esmawee Endut	Architect/UiTM Shah Alam
O1	Observer 1- Assoc Prof Tpr Dr Ahmad Faisal Alias	Town Planner/UiTM Perak
O2	Observer 2- Dr Nor Haslina Jaafar	Urban Designer/ UKM
LA1	Dr Suriati Ahmad	Cultural Landscape and Tin mining/ UiTM Perak
LA2	Dr Afzanizam Muhammad	Vernacular Architecture & Heritage/ UiTM Perak
LA3	Ar Dr Noraziah Mohammad	Architect/ UKM
LA4	Dr Mohd Iskandar Abd Malek	Architect/ UKM
LA5	Sr Dr Suhana Johar	Building Surveyor/ UKM
LA6	Dr Nor Mazlan Yunus	HMP/ Planner/ Plan Malaysia
LA7	Mr Jacky Chew	Coordinator Tin mining gallery/ Director Papan Heritage Group.

Table 5.17

FGD Session with Local Community

Focus Group Discussion 1 Venue: Dewan Orang Ramai Papan Participant 20. Date: 16/9/2023 Presentation on awareness of conservation in Papan.	
Question 1 (Mr Chaw)- Contractor/ resident	What should be done for buildings in Pekan Papan especially the old shophouses
Question 2 (Pn Jamilah) Pusing	How to deal ownership problem especially the shophouses which half of the buildings were leased to the bank and there's a rumour that there's a plan to demolish and to excavate a new mining pond area on the existing site of the pre-war shophouses.
Question 3 (En Hisham Muhammad)	could it be successful to do the same effort as other towns such as creating a mural and paintings against the existing wall as a placemaking project.

Table 5.18

Summary Of Discussion During FGD 2

Focus Group Discussion 2

D Iskandar Hotel

16/9/2023

Chairman: Assoc Prof Dr Esmawee Endut (UiTM)

Participant:

1. Assoc Prof Tpr Dr Ahmad Faisal Alias (UiTM)
2. Dr Nor Haslina Jaafar (UKM)
3. Dr Suriati Ahmad (UiTM)
4. Dr Afzanizam Muhammad (UiTM)
5. Ar Dr Noraziah Mohammad (UKM)
6. Dr Mohd Iskandar Abd Malek (UKM)
7. Sr Dr Suhana Johar (UKM)
8. Dr Nor Mazlan Yunus Plan Malaysia
9. Mr Jacky Chew Papan Heritage Group

No	Panel question	Comment/ discussion

1.	Asst Prof Tpr Dr Ahmad Faisal - What is main consideration of cultural heritage in Papan	To consider originality of Papan based on historical records and people experience.
2.	Dr Nor Haslina Jaafar & Dr Shuhana Johar - What is the appropriate method to identify the tangible factor in Pekan Papan?	In order to recognize the tangible factor, appropriate method have to be firm and legibility factor is appropriate to recognize the physical factor towards conservation.
3	Dr Suriati Ahmad & Dr Afzanizam - Important essence to be considered in Pekan Papan.	Pekan Papan have multicultural essence, which is Chinese and Mandailing, but they have lived together in one place. A Conservation strategy have tom consider all this factor.
4	Dr Noor Mazlan Yunus - Planning aspect to be considered in conservation strategies for Pekan Papan. -	Papan have 4 types of development according to history and culture. Zoning is important to create a proper conservation management plan
5	Dr Noraziah & Dr Iskandar - Inventory of buildings in Pekan Papan	An inventory of buildings according to type and zoning have to be done in Pekan Papan in order to identify appropriate conservation strategies.
6	Mr Jacky Chew - Involvement of local community in conserving Papan.	In present the effort was done by JKKK Papan and Papan Heritage Society. Involvement of all parties especially NGO, Government agencies from Mandailing people are important.



Jadual Aktiviti 16.9.2023 Sabtu 活动目录 16.09.2023 星期六

1	8:00am	入席	Pendaftaran Peserta & Hadirin
2	8:30am	大会开始	Majlis Upacara Perasmian Bermula
3	9:00am	环保垃圾桶开幕仪式	Upacara Perasmian - Penempatan Stesen Kitar Semula
4	9:30am	开幕表演(跆拳道)	Persembahan Taekwondo Gaya Seni mempertahankan diri dari **"CHI Taekwon-Do Academy"**
5	10:00am – 12:00pm	多元种族服装比赛 - 大街游行 - 上舞台拍照打分 (大街舞台)	Pertandingan Pakaian Tradisi Berbilang Kaum - Fun Walk - Penggambaran di atas Pentas
6	11:00am	甲板大会堂讲座会 (复建古迹遗产)	Sesi Ceramah Akademik by Encik Rifzall - Langkah Memelihara Bangunan Dan Cara Memulihara Binaan
7	12:00pm	嘉宾茶点	Jamuan Ringan - VVIP
8	12:30pm	颁奖仪式 - (服装比赛)	Upacara Penyampaian Hadiah - Pakaian Tradisi
9	1:30pm	历史讲故事比赛 - 小学组	Pertandingan Bercerita Sejarah Malaysia - Sekolah Rendah
10	3:00pm	颁奖仪式 - (讲故事比赛)	Upacara Penyampaian Hadiah - Bercerita Sejarah
11	3:30pm	乐队音乐表演	Live Band
12	4:30pm	阿公阿婆讲故事 (义兴茶室)	Sesi bercerita Kesaksian Sejarah Dan Pengalaman Bersejarah Oleh Penduduk Tempatan. - Kisah benar mengenai percanggahan dari segi undang-undang, pertelingkahan, rusuhan kaum dan bahaya yang dihadapi sepanjang era kerja-kerja perlombongan dijalankan pada masa dahulu
13	5:30pm	乐队音乐表演	Sambungan Live Band

- Pasar Kraftangan dan Gerai Makanan 手工市集/食物
- Eco Green Counter (MDBG) 环保活动 (回收旧物品)
- Pameran Automobil Klasik 复古车展览
- Demonstrasi Medulang 示范洗琉琅
- Permainan Catur Cina Gergasi (Lokasi: gelanggang bola keranjang) 玩象棋(篮球场)

Figure 5.46 Agenda FGD1 and Poster Of FGD



Figure 5.47 FGD Session at Dewan Orang Ramai Papan and Hotel D Iskandar, Sri Iskandar.

5.9.1 Outcome from Focus Group Discussion

The first Focus Group Discussion was held at Pekan Papan on 16/9/2023 together with local community and visitors purposely to look at their respond on the conservation awareness of Pekan Papan. A presentation on the physical characteristic of Pekan Papan was done and followed by question-and-answer session. There are about 20 participants present during this session. There are three main question which have been raised up from the participants which mostly related to current condition of Pekan Papan. The first question was what the strategy is to maintain the existing structure especially the pre-war shophouses which is in dilapidated condition. Second question was how to deal with ownership problem especially the shophouses which half of the buildings were leased to the bank and there's a rumour that there's a plan to demolish and to excavate a new mining pond area on the existing site of the pre-war shophouses. The third question was in order to conserve Pekan Papan, could it be successful to do the same effort as other towns such as creating a mural and paintings against the existing wall as a placemaking project.

Respond to first question was Local authority and NGO have to take proper action such as to make a dilapidation survey and create a proper guideline in order to examine and ensure the stability of the structure which will derive in creating a proper Heritage Management Plan. Respond to 2nd question was an involvement from MDBG and PTG Batu Gajah to check the land status. In present the plan was still pending due to current economy situation and legal matters. Respond to question 3 was Papan is not same compared to other town where in current situation 90% of the town was abandon and surprisingly this situation has attracted people to come and see the authentic factor of the town. By doing a placemaking project such as mural painting will ruin the original form. The effort done by local community such as remaining the existing wall and furbish it with hardscape element proved to create the sense of place and became one of the attractions in Pekan Papan.

The second FGD was held on the evening session at Hotel D Iskandar, Seri Iskandar which attended by 10 experts panel including Main and co supervisors. The main discussion was the method of analysis which will derive to the result on appropriate conservation strategies for Pekan Papan. The first issue was the area coverage on the legibility factor in Pekan Papan whether it should include the whole area including topography and riverside area. The whole area of Pekan Papan consist of

the old town and new settlement. For this study, the scope will focus on the zoning which based on main community area and buildings which built in 18th century, which is Pre-war shophouses, Kampung Mandailing and Kampung Baru Papan. Therefore, the scope of this study will focus on the legibility of this area and how it relates to the understanding to people in term of awareness and activities on appropriate conservation in Pekan Papan in order to create a conservation strategy which will give an impact to the whole area of Pekan Papan.

The second issue was to focus on the variable of the study. The main objective of this study is to explore and analyst the tangible factor in Pekan Papan. Therefore, all variables should focus on these factors which include the architectural features, urban structure and cultural landscape in term of physical features and its attributes to the cultural heritage value in order to create a conservation strategy. Other issues which have been discussed are about the tangible to be considered in order to create appropriate conservation strategies. Originality of Pekan Papan was based on historical records and people experience which have to be considered and in order to recognize the tangible factor, appropriate method have to be firm and legibility factor is appropriate to recognize the physical factor towards conservation. Pekan Papan also have multicultural essence, which is Chinese and Mandailing, but they have lived together in one place. In present, Papan have 4 types of development according to history and culture., therefore zoning and an inventory of buildings according to type and zoning have to be done in Pekan Papan in order to identify appropriate conservation strategies. In present the effort was done by JKKK Papan and Papan Heritage Group. Involving of all parties especially from NGO, government agencies and Mandailing people are important.

5.10 Summary

From the analysis which based on qualitative method consists of observation, in depth interview and focus group discussion. The aim is to obtain the appropriate conservation strategies for Pekan Papan with reference to the physical character which related to its cultural heritage value. In present Papan consist of three major components of building typology based on its historical records which is the pre-war shophouse, Kampung Mandailing and Kampung Baru Papan which make it stand as Outstanding Universal Value (OUV) and universally recognised as important as having influence the evolution of mankind as a whole at one time or another. From the analysis also found that the physical character such as building façade with its rich architectural detail and still maintain its original form played an important role as a sense of place and attraction in Pekan Papan. There are many efforts was done especially by local communities to preserve Pekan Papan and to promote it to the public but however, with no appropriate strategies, it might be affected with over development which will ruin its authenticity. The next chapter will conclude the strategies by the view of physical characteristics and effort of management on how to conserve Pekan Papan

CHAPTER 6
FINDING AND CONCLUSION
URBAN CONSERVATION STRATEGIES FOR PEKAN PAPAN

6.1 Introduction

In order to achieve conservation strategies and actions through the interpretation of cultural heritage, the recognition of the physical characteristics of the place itself are the most important factors which have to be considered. As in describing the identity of the place, the presence of distinct elements must be recognized and remembered by people (Shuhana, 2011). Human activity is the second component of the identity of the place which determines the physical environment that could provide the setting for the activity to take place. This leads to how people response physically and mentally in term of their behavior pattern towards the tangible elements which is the built forms and the intangible elements from activities within the area.

6.2 The Important of Physical Character as Factor of Conservation.

In this study, the identification of physical qualities has been obtained from the aspects of legibility from the perspective of physical characteristics including cultural landscape, urban structure and architectural features. The variety of users within the community of Pekan Papan have fostered the sense of belonging or place attachment of the area from the understanding of the significant of the existing natural condition and the built form such as the pre-war shop houses, Kampung Mandailing and Kampung Baru Papan. Therefore, the built environment that has distinctive and recognizable character needs to be retained, and upkeep as the local community's memory and association with them. By increasing the permeability, legibility and robustness of the physical setting will eventually support the town's activities.

6.3 The Influence of Physical Elements, Activity and Image

Pekan Papan consists of various characters which are mostly based on its historical essence and cultural activities. Pekan Papan was opened by Mandailing before the opening of tin mining. Once the site has opened, it has attracted Chinese immigrant to work at the tin mining which mostly came from the tin mining area at Larut. Historically Papan was dominated by the two major culture, the Mandailing and Chinese together under the role of British as an administrator. Within a domestic scale, Pekan Papan was once a developed socio culture for domestic people to do their daily activities and to live in a community. The distinctive character of the built form, such as the temple and Mosque shows its identity and the character of the place based on religion and its culture. However, in present day these buildings have still remained but left in abandonment especially what happened to pre- war shop houses and Masjid Papan.

A better physical setting is needed to add robustness and richness to the place as it will support the variety of activities for social interaction day and night. The legibility of the streets along the built forms needs to increase by having a distinctive character as it contributes to helping people to recognize and remember the areas within the place. Street is one of the elements that contribute to the clarity of a city. It refers to the element "path" (da Silva et al. 2014; Khalaf & Ja'afar 2020) The hierarchy of the street layout is also will be improved by having the distinctive unifying character of streetscapes. The unique “kaki-lima” elements are one of the recommendations as unifying elements for the shop houses. The networking of side lanes and back lanes is identified as an alternative place of activities on ground level as increasing the permeability within the place. The legibility of the old towns will be influenced by the solid and void.

6.4 The Significance of conservation strategies as responsive environment factors for Pekan Papan as An Identity of Place.

Conservation strategies at the abandon town at Pekan Papan could be considered different from the practice of other towns. Authenticity is the main factors which have to be considered in order to maintain its original form and cultural activities. In order to achieve the conservation strategies and action through the interpretation of cultural

heritage, the recognition of the physical characteristic of the place itself are the most important factor to be considered. As in describing the identity of the place, the presence of distinct elements must be recognized and remembered by people (Shuhana, 2011).

Human activity is the second component of the identity of the place. Physical environment provides the setting for the activity to take place. Thus, this leads to how people response physically and mentally in term of their behaviour pattern towards the tangible elements which is the built forms and the intangible elements from activities within the area the identification of physical qualities have been obtained from the aspects of urban structure and architectural features. The variety of user within the community of the old town have fostered the sense of belonging or place attachment of the area.

The existing old significant buildings such as the pre-war shop houses, Istana Raja Billah and public buildings that have distinctive and recognizable character need to be retained as its original form, and upkeep as the local community has memory and association with them. Increasing the permeability, legibility and robustness of the physical setting will eventually support the town's activities. A better physical setting is needed to add robustness and richness to the place as it will support the variety of activities for social interaction day and night. The legibility of the streets along the built forms needs to increase by having a distinctive character as it contributes to helps people to recognize and remember the areas within the place. The hierarchy of the street layout is also will be improved by having the distinctive unifying character of streetscapes. The unique "kaki-lima" elements are one of the recommendations as unifying elements for the pre-war shop houses. The networking of back lanes is identified as an alternative place of activities on ground level as increasing the permeability within the place.

The legibility of the old towns have also been influenced by the solid and void. The architectural features especially at building facade within the built forms helps in creating visual appropriateness and distinctive character in creating the town identity. The differences of building frontage will create variety and redefined the grain. The roofscape, façade treatment and material usage of the existing building have been analyzed to identify the harmonic visual experiences by recognizing the sense of rhythm and pattern. The sensitivity to the harmonic relationship which concerns the relationship between the parts and how the

material fit together to form a coherent whole that can create a strong identity of places. The visual orientation can be used in achieving a visual balance of the elements within the buildings. Colours are one of the syntheses of unifying elements that increase the distinctive visual identity.

Unity within variety needs to be addressed in identifying the sameness in character. The effect of visual experience of place recognition is very important for identification of an area. A visual stop will be identified within the townscape area by promoting vista on architectural detailing. The selected building will be the visual stop for cultural, place of worship and community function and these building carry meaning and association to the place. The sense of enclosure of built forms needs to be identify as to enhance the spatial volume which can determine the quality of perspective view of the area. Distinctive streetscapes elements will enhance the deflection effect and increase the imageability of the street. Pekan Papan have been divided into 4 main area, which is Pre-war Shophouses, Kampung Mandailing, Kampung Baru Papan and backlane. In present, most of the Kampung Mandailing area have been vanished except Istana Raja Billah, Rumah asal , Masjid Papan and Rumah Bilal while the pre-war shophouses is still remain but in deteriorated conditions.

The unique character of the area especially street at Pre-war shophouses and square at Kampung Mandailing area areas can be enhanced by introducing a high degree of sensory experience and the transparency of the activities. The physical setting for the temporal activities also must be able to support as in result will increase vitality and add vibrant to the built forms within the old town. The familiarity of people's perception at Pekan Papan is the activities along the street pattern of the shop houses. The old buildings and its surrounding place act as a frequent sighting of physical elements and carry along the historical significance. As the familiarity with physical elements in the area is closely related to the historical significance of the surrounding building within the built forms is considered distinctive, and places become recognisable.

The distinctiveness of streets is increased with the presence of old buildings where these buildings are a reminder of old and/ past time even though not because of its physical characters just of their presence will evoke the nostalgic memories. As people tend to have an affinity towards those places due to their special role in the past lives. As meaning is evoked by the physical form, the visual

simulation in experiencing the place needs to be highlighted in the conservation recommendation. The creation of vista and emphasizing on visual stimulation and appreciation will increase the visual memory of the place. The visual continuity of the activities between buildings and spaces will increase the sensory experience. The architectural features, especially at building facade within the built forms help in creating visual appropriateness and distinctive character in creating the town identity. The differences in building frontage, especially the abandoned pre- war shophouses, have created variety and redefine the grain. The roofscape, façade treatment and material usage of the existing building can be analyzed to identify the harmonic visual experiences by recognizing the sense of rhythm and pattern.

The sensitivity to the harmonic relationship, which concerns the relationship between the parts and how the material fit together to form a coherent whole that can create a strong identity of places. According to Kee (2019), one of the ethics in conservation of heritage buildings is balanced between artistic and historical heritage value, which means that conservation is not solely concerned with the aesthetic value of the building but should also convey the main message from the aspect of culture from different historical areas. Visual orientation can be used in achieving a visual balance of the elements within the buildings. Colours are one of the syntheses of unifying elements that increase the distinctive visual identity. Unity within variety needs to be addressed in identifying the sameness in character. The effect of visual experience of place recognition is very important for identification of an area. A visual stop will be identified within the townscape area by promoting vista on architectural detailing.

The selected building will be the visual stop for cultural place of worship and community function and these buildings carry meaning and association to the place. The sense of enclosure of built forms needs to be identified to enhance the spatial volume which can determine the quality of perspective view of the area. Distinctive streetscapes elements will enhance the deflection effect and increase the imageability of the street. The main criteria that determine the experiential quality are how the activity occurs within the physical setting. The unique character of the main street along pre-war shophouses, Kampung Mandailing, Kampung Baru Papan and back lane could be enhanced by introducing a high degree of sensory experience and the transparency of the activities. The physical setting for the temporal activities also must be able to support as in result will increase vitality and add vibrant to the built forms within the old towns.

6.5 Significance of Variation in Perception of Qualities Associated with Identity Between Different Socio-Cultural Groups

The cultural activity in Pekan Papan is related closely to the image and physical in Papan. Due to economical factor, Pekan Papan was divided into two major ethnic, Mandailing and Chinese. In Present majority of population was dominated by Chinese who lived in Kampung Baru Papan. Pekan Papan was once of well-known Islamic center in Perak. This can be seen from the evidence of Masjid Papan and graveyard around Rumah Besar Raja Billah. From the historical record, Pekan Papan was a settlement for Mandailing to work in tin mining and to assist Raja Billah's family. Pekan Papan is also a place where the tribe's family meet and arrange their family occasions such as weddings and *kenduri.* The image of buildings and surroundings have created a kampung environment through the arrangement of its cultural landscape and built form. In the present day this area was in major abandonment where most of the buildings were left in dilapidated condition. The pre-war shophouses were the earlier built form built in Pekan Papan. The image of street eclectic buildings has shown its uniqueness to public as an image of pre-war buildings. In current condition most of the buildings are in dilapidated condition. Since 2020, minor repair work has been done at roof and wall area in order to remain its original image.

Kampung Baru Papan was built later in 1964 in order to cater to the population of tin mine workers. Most of the houses are located along the street at rear side of pre-war shophouses with small scale and simple timber construction as an identity of typical residents of Chinese architecture. In present these areas are places which are still vacant. The familiarity of people's perception at Pekan Papan could be seen from the activities along the street pattern of the pre-war shop houses and surrounding buildings at Kampung Baru Papan. The pre-war buildings and its surrounding place act as a frequent sighting of physical elements and carry along the historical significance. However, the Kampung Mandailing and its surroundings are located quite hidden from the main street and need a proper signage or direction for people to understand. In present the external wall has function as a clear edges and district as a boundary of kampung area.

As the familiarity with physical elements in the area is closely related to the historical significance of the surrounding building within the built forms is considered distinctive, and places become recognizable. The distinctiveness of streets is increased with the presence of old buildings where these buildings are a reminder of old and past

which will evoke nostalgic memories as people tend to have an affinity for those places due to their special role in the past lives. As meaning is evoked by the physical form, the visual simulation in experiencing the place needs to be highlighted in the conservation recommendation. The creation of vista and emphasizing visual stimulation and appreciation will increase the visual memory of the place. The visual continuity of the activities between buildings and spaces will increase the sensory experience.

6.6 The Significance of Conservation Strategies for Pekan Papan and Abandon Towns.

Conservation strategies at the abandon towns could be considered different from the practice at the well maintain towns such as Penang or Malacca. Authenticity is the main factors which have to be considered in order to maintain its original form and cultural activities. In order to achieve the conservation strategies and action through the interpretation of cultural heritage, the recognition of the physical characteristic of the place itself are the most important factor to be considered. As in describing the identity of the place, the presence of distinct elements must be recognized and remembered by people (Shuhana, 2011). Human activity is the second component of the identity of the place. Physical environment provides the setting for the activity to take place. Thus, this leads to how people response physically and mentally in term of their behaviour pattern towards the tangible elements which is the built forms and the intangible elements from activities within the area the identification of physical qualities have been obtained from the aspects of urban structure and architectural features. The variety of user within the community of the old town have fostered the sense of belonging or place attachment of the area.

The existing old significant buildings such as the pre-war shop houses, the palace and civic buildings that have distinctive and recognizable character need to be retained, and upkeep as the local community has memory and association with them. Increasing the permeability, legibility and robustness of the physical setting will eventually support the town's activities. A better physical setting is needed to add robustness and richness to the place as it will support the variety of activities for social interaction day and night. The legibility of the streets along the built forms needs to increase by having a distinctive character as it contributes to helps people to recognize and remember the areas within the place. The hierarchy of the

street layout is also will be improved by having the distinctive unifying character of streetscapes. The unique “kaki-lima” elements are one of the recommendations as unifying elements for the shop houses. The networking of side lanes and back lanes is identified as an alternative place of activities on ground level as increasing the permeability within the place. The legibility of the old towns will be influenced by the solid and void. The architectural features especially at building facade within the built forms helps in creating visual appropriateness and distinctive character in creating the town identity.

The differences of building frontage will create variety and redefined the grain. The roofscape, façade treatment and material usage of the existing building can be analyzed to identify the harmonic visual experiences by recognizing the sense of rhythm and pattern. The sensitivity to the harmonic relationship which concerns the relationship between the parts and how the material fit together to form a coherent whole that can create a strong identity of places. The visual orientation can be used in achieving a visual balance of the elements within the buildings. Colours are one of the syntheses of unifying elements that increase the distinctive visual identity. Unity within variety needs to be addressed in identifying the sameness in character. The effect of visual experience of place recognition is very important for identification of an area. A visual stop will be identified within the townscape area by promoting vista on architectural detailing. The selected building will be the visual stop for cultural, place of worship and community function and these building carry meaning and association to the place. The sense of enclosure of built forms needs to be identify as to enhance the spatial volume which can determine the quality of perspective view of the area. Distinctive streetscapes elements will enhance the deflection effect and increase the imageability of the street.

Pekan Papan have been divided into 4 main area, which is Pre-war Shophouses, Kampung Mandailing, Kampung Baru Papan and backlane. In present, most of the kampung Mandailing area have been vanished except Istana Raja Billah and Masjid Papan while the pre-war shophouses is still remain but in deteriorated conditions. The unique character of the area especially street at Pre-war shophouses and square at Kampung Mandailing area areas which can be enhanced by introducing a high degree of sensory experience and the transparency of the activities. The physical setting for the temporal activities also must be able to support as in result will increase vitality and add vibrant to the built forms within the old town.

The familiarity of people's perception at Pekan Papan is the activities along the street pattern of the pre-war shop houses. The old buildings and its surrounding place act as a frequent sighting of physical elements and carry along the historical significance. As the familiarity with physical elements in the area is closely related to the historical significance of the surrounding building within the built forms is considered distinctive, and places become recognisable. The distinctiveness of streets is increased with the presence of old buildings where these buildings are a reminder of old and/ past time even though not because of its physical characters just of their presence will evoke the nostalgic memories. As people tend to have an affinity towards those places due to their special role in the past lives. As meaning is evoked by the physical form, the visual simulation in experiencing the place needs to be highlighted in the conservation recommendation. The creation of vista and emphasizing on visual stimulation and appreciation will increase the visual memory of the place. The visual continuity of the activities between buildings and spaces will increase the sensory experience.

6.7 Conservation Strategies Related to Proposal from Local Authority for Pekan Papan

Reference to Majlis Daerah Batu Gajah (MDBG) Structure Local Plan 2025, Pekan Papan have been selected as one of the small towns in Perak which have a potential to be conserved and developed (table 6.1). From the SWOT analysis done, Pekan Papan have been identified as one of the towns which have a weakness in term of its abandonment, functionally and physically which contribute to imbalance development in the district. Therefore, Pekan Papan have been identified as one of the former tin mining towns which have a potential to be developed as one of the ecotourist attraction in Lembah Kinta such as to upgrade Taman Herba Papan as one of agrotourism attraction and Rumah Besar Raja Billah to promote Mandailing culture to the public. However, some unsympathetic proposals have been listed by MDBG for example to convert the old shophouses to new boutique hotel without considering the current condition of the buildings especially the safety factor. Therefore, in this study, a proposal has been done through detail analysis of the physical factor which related to cultural heritage of Pekan Papan considering Strategies from MDBG on the reality and logic of implementation based on real situation.

Table 6.1

List Of Conservation Strategies Extract from Local Authority (MDBG) Local Plan 2025

Extraction from RT MDBG 2025	**Description**	**Implementation**
Strategical outlook	**Type of development corridor**	**Secondary Development Corridor**
Hierarchy of Settlement-Rebranding of village growth centre	Rebranding to Rural growth Centre involving eco-tourism activities	- Meeting point before Taman Herba Papan - Potential to be attraction for people to visit before going to Taman herba Papan - Potential to be a location for fil making.
Issues from SWOT analysis	Strength Weakness	- Potential to be a tourism area which could generate economy factor, small industry and rural housing and could contribute to generate job opportunities to local people.

	Opportunity weakness	- Abandon old town to be forgotten in term of function and physical development - Abandon Kampung and commercial buildings. - No proper conservation management and planning on historical building - Recreational tourism activity - Papan recreational area - Tourism products related to -Cultural, history and heritage. - Unbalanced development between new and old.
Strategic Planning	Physical	- Preserving natural environment - Alternative development to abandon tin mining town

		- Redevelopment of abandon old town - Identification of conservation zoning on buildings and heritage elements.
Town Growth Concept- Proposal of tourism cluster development.	- Tin Mining Heritage Town in 24.11-acre area. - Historical and Agro recreation area - To rejuvenate Pekan Papan - To come out with interesting tourism package - Proposal for boutique hotel - Proposal to upgrade Taman herba Papan - To rearrange spatial activity of people in Pekan Papan - Proposal of beautification landscape element in Pekan Papan	Implementation proposal to Pekan Papan - Rumah Besar Raja Billah - Taman Herba Papan - Hutan Lipur Papan - Papan Heritage Village - Upgrading Pekan Papan - Signage in Pekan Papan - Rebranding Pekan Papan to Pekan Billah - Proposal adaptive reuse old shophouses to boutique hotel - Implementation of traditional concept of interior design in Kampung Mandailing - Proposal of watching tower at Taman herba Papan

		- To ensure new development are balance without destroying existing element. - Potential new development which could generate income to local people. - Avoiding unused area in term of function. - Proposal of landscape element and street furniture which relate to local identity.
Development proposal - Conservation of Building with heritage entity - Heritage tourism & recreation destination under governance of MDBG - Upgrading town image with consideration of urban structure,	- Rumah Besar Raja Billah - Masjid Papan - Pre-War shophouses	- Maintenance of area surrounding Rumah Besar Raja Billah - Repainting abandon buildings - Repairing buildings in deteriorated conditions - Provision of pedestrian walkway - Provision of beautification of Pekan Papan through preservation and beautification on landscape element. - Beautification and preservation of backlane and five footways at old shophouses.

architectural features and cultural landscape		

Source: MDB

6.8 Proposal and Method of Urban Cultural Heritage Conservation Strategy from the Analysis of Physical Characteristic.in Pekan Papan, Perak.

This study is significance as a record and documentation of existing former tin mining towns in order to create awareness from the process of conservation and as strategies to regenerate the former tin mining towns as cultural heritage resources from various sectors such as education and tourism. In present conditions these towns are in abandonment in dilapidated conditions and might be demolished due to development. Distinctive characteristics of the former tin mining towns such as Pekan Papan should be understand by the stakeholders as an embodiment of economy and the close social culture in Malaysia. In current condition these street towns remain an interesting small town steeped in history and heritage of the days gone by. The unique of the old town's character with its richness of urban and architecture design, related to historical and cultural heritage as resources which should be understand by future generations through the awareness from the process of conservation and as tourist attraction from the strategy of regenerating the former tin mining towns as cultural heritage resources and action of governance and others in conserving the urban cultural heritage in Former tin mining towns of Lembah Kinta.

From the analysis of current conditions, legibility factors to identify tangible and quality elements, expert's opinions from in depth interview and focus group discussion, , the approach of conservation in Pekan Papan have been focused on three main zone which is the pre-war shophouses, Kampung Mandailing and Kampung Baru Papan. The approach on the physical factor could be taken from the perspective of cultural landscape, urban structure and architectural features which have major influenced the relationship with history and cultural activities in Pekan Papan. The selection of area and sequence of heritage journey have been obtained from the result from analysis which have determined on the appropriate conservation strategies in Pekan Papan.

From the analysis, action zones for conservation strategies in Pekan Papan have been separated into four areas which are Focal point, (FP) primary conservation area1 (PCA1), Primary Conservation area 2 (PCA2) and support area (SA) (table 6.2, fig 6.1-6.3). The selection was based on historical record and the community activities at Pekan Papan. In present, Focal point (FP) are the meeting of all local activities where the

existing coffee shop and community hall is located. This area has been central of attraction on the activities in Papan. PCA1 is the area where the old buildings in Papan where the pre-war shop houses which are mostly abandoned are located. PCA 2 are Kampung Mandailing which consists of Rumah Besar Raja Billah, Masjid Papan, Rumah Asal and Rumah Bilal are located while SA consists of Kampung Baru Papan which were built in 1960 where most of the area still occupied by Chinese community who in present managing Pekan Papan

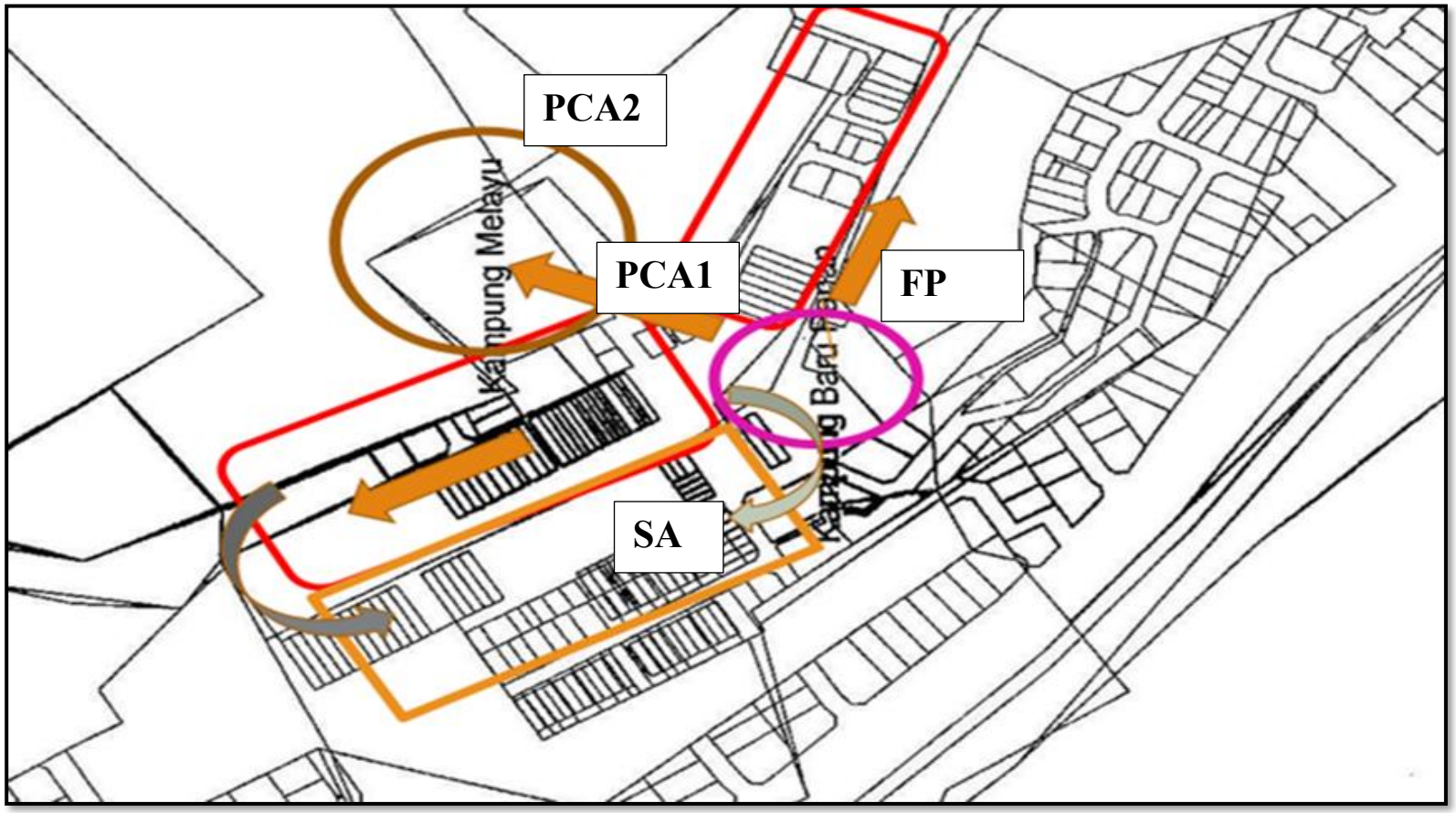


Figure 6.1 Zoning of Conservation Action Area in Pekan Papan

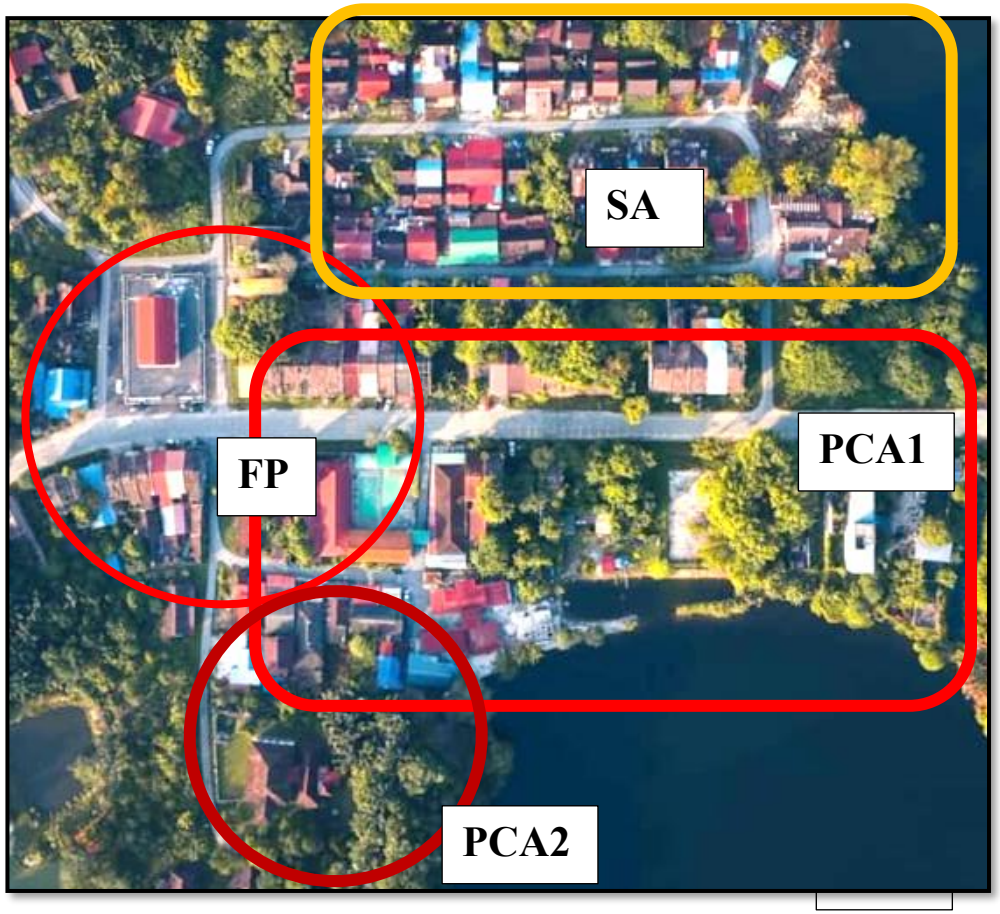


Figure 6.2 Coverage Area of Conservation Area in Pekan Papan Including the Focal Point (FA), Primary Conservation 1 (PCA1) , Primary Conservation 2 (PCA2) and Support Area (SA)



Figure 6.3 Diagram Shows the Zoning of Conservation Area in Pekan Papan

Table 6.2

Images Of Built Form at Selective Conservation Area

FP (Focal point)	PCA1 (Primary Conservation Area1)- Pre War shophouses	PCA2 (Primary conservation area 2)- Kampung Mandailing	SA (Support area)- Kampung Baru Papan
 C offee shop		 Rumah Besar Raja Billah	 Row House
 Yip Sei Mansion		 Rumah Asal	 Single Unit house

 Community Hall	 Pre-War shophouses	 Masjid Papan	 Middle alley/Backlane

6.9 Conservation Strategies at Focal Point

The selection of focal point is based on the analysis where it is located at the main junction and meet point as a strong node in Pekan Papan. In present this is the location starting from Kum Min Temple, Yip Sei Mansion, and centralized at community hall (previously the old market) is located and surrounded by the main cultural attraction, the coffee shops which located at the freestanding building, unit at the pre-war shop houses, Sybil Kathiagasu Gallery and Hwa Chao old school (table 6.3, fig 6.4-6.6). The location of the focal point gave a clear view as a sense of direction to another place through the main road and street. As a focal point, it is important to create an image which could give a sense of welcoming to Pekan Papan. Therefore, the surrounding buildings should be preserved as to the original image with additional of façade treatment and beautification like new painting and signage. In term of usage, most of the pre-war shop houses at this area could be adaptively re-use as local commercial area such as café provided with public facilities such as information centre in order to cater visitors and give business opportunity to local community. Public buildings such as Hwa chao old school and Sybil Kathigasu Gallery have to be given alive as information area about Pekan Papan by restoring the building as the original form with minor amendment to the structure (table 6.7- fig 6.9) The surrounding landscape area also play an important role as first impression for public who come to visit Pekan Papan. New element such as pavement area as square with street furniture with an image that related to history of Pekan Papan have to be provided in this area.



Figure 6.4 Focal Point and Accessibility to Other Area in Pekan Papan.



Figure 6.5 The Existing View of Coverage of Conservation Area in Focal Point as a Sense of Welcoming to Papan Starting from Mansion to Dewan Orang Ramai.



Figure 6.6 Diagram Shows Conservation Area at Focal Point (FP)

Table 6.3

Conservation Strategies at Focal Point (FP)

No	Zone	Element	Description
1	FP Coffee Shop Centre of attraction for local people to gather together in their community.		1. Upgrading the coffee shop into a new form which have an image of Pekan Papan and maintaining the original style of kopitiam in term of layout, furniture and environment 2. Proper signage to give information to people. 3. Maintenance the existing structure 4. Provision of accessibility such as parking.
2	FP Yip Sei Mansion is one of the unique buildings which have various architectural features such as Chinese at wall, Colonial at column and		1. Preventive and preservation action should be taken in order to maintain its aesthetic and existing condition. 2. Maintain existing façade with beautification at street and road shoulder 3. Provision of related street furniture and signage 4. Preservation of architectural detail such as roof tile, gable end and balustrade by using similar material 5. Adaptive reuse as gallery or information centre about Pekan Papan

	pillars and roof (tunjuk langit, papan cantik at gable end shows Malay Architectural features. In current condition it is vacant but yet in dilapidated condition		6. Repainting work as per original colour scheme
3	FP Hwa Chao Old School		1. Preventive and preservation action should be taken in order to maintain its aesthetic and existing condition. 2. Maintain existing façade with beautification at street and road shoulder 3. Provision of related street furniture and signage 4. Preservation of architectural detail such as roof tile, window, pillars and doors. 5. Adaptive reuse as library or information centre about Pekan Papan 6. Repainting work as per original colour scheme

4	Dewan orang Ramai function as focal point and accessibility to other area in Papan.		1. The strategies of conservation should include preservation and maintaining the existing structural as original features of surrounding buildings as a main attraction to the public. 2. Provision of related street furniture and signage 3. Provision of accessibility such as parking.
5	FP Pre-War Shop houses		1. Minor Preventive and preservation action should be taken in order to maintain its aesthetic and existing condition. 2. Maintain existing façade with minor changes and beautification at street and road shoulder 3. . Provision of related street furniture and signage 4. Preservation of architectural detail such as roof tile, gable end and balustrade by using similar material

			5. Restoration of material should be the same with original features 6. Upgrading existing coffee shop and adaptive reuse as new commercial area. Operated by local community. 7. Repainting work as per original colour scheme
6	FP Sybil Kathiagasu Gallery		1.Minor Preventive and preservation action should be taken in order to maintain its aesthetic and existing condition. 2.Maintain existing façade with minor changes and beautification at street and road shoulder 3.Provision of related street furniture and signage 4.Preservation of architectural detail such as roof tile, window, door & column. 5.Restoration of material should be the same with original features 6 Re-open the gallery with more information 7.Repainting work as per original colour scheme



Figure 6.7 Existing Condition and Artist Impression onNew Look at Pre-War Shophouses.



Figure 6.8 Existing Condition & Artist Impression on the Restoration Work of Sybil Kathiagasu Gallery



Figure 6.9 Existing Condition and Artist Impression on the Restoration Work at Hwa Chao Old School

6.10 Conservation Strategies at Primary Conservation Area 1 (PCA1)

The selection of Primary Conservation Area (PCA 1) is based on the analysis of l consists of pre-war shop houses which become a strong element along path and create its unique district and edges. This area is located adjacent to existing tin mining pond and Most of the pre-war shop houses still remain its original form and in present most of the buildings are left in abandonment and in dilapidated condition. (table 6.4, Fig 6.10-6.12). The pre-war shop houses are the area which to be a primary conservation area where most of the conservation work should focus on preservation and rehabilitation the structure to maintain its original features. From the interview with local community, most of the buildings was built without column and therefore its quite fragile. Major restoration work should include to ensure the structural stability and maintain the façade which rich with architectural features. Consolidation work could be implemented by replacing the buildings element such roof tile, windows and painting as per its original, features. In term of usage, 30 units of the shophouses still vacant mostly at the ground floor. An incentive could be given to tenants to make a preservation which in time being it was done by the effort from local community. Minor adaptive re-use work or any minor renovation work could be allowed since the authentic features have become the attraction to the public. (fig 6.13 & 6.14)



Figure 6.10 The Existing Conditions at Pre-War Shop Houses Which Mostly Still Maintain its Original Form



Figure 6.1 Existing Buildings Along Papan Main Road Focusing on the Street Pattern and Pre-War Shop Houses Towards the Mining Pond at Both Sides.

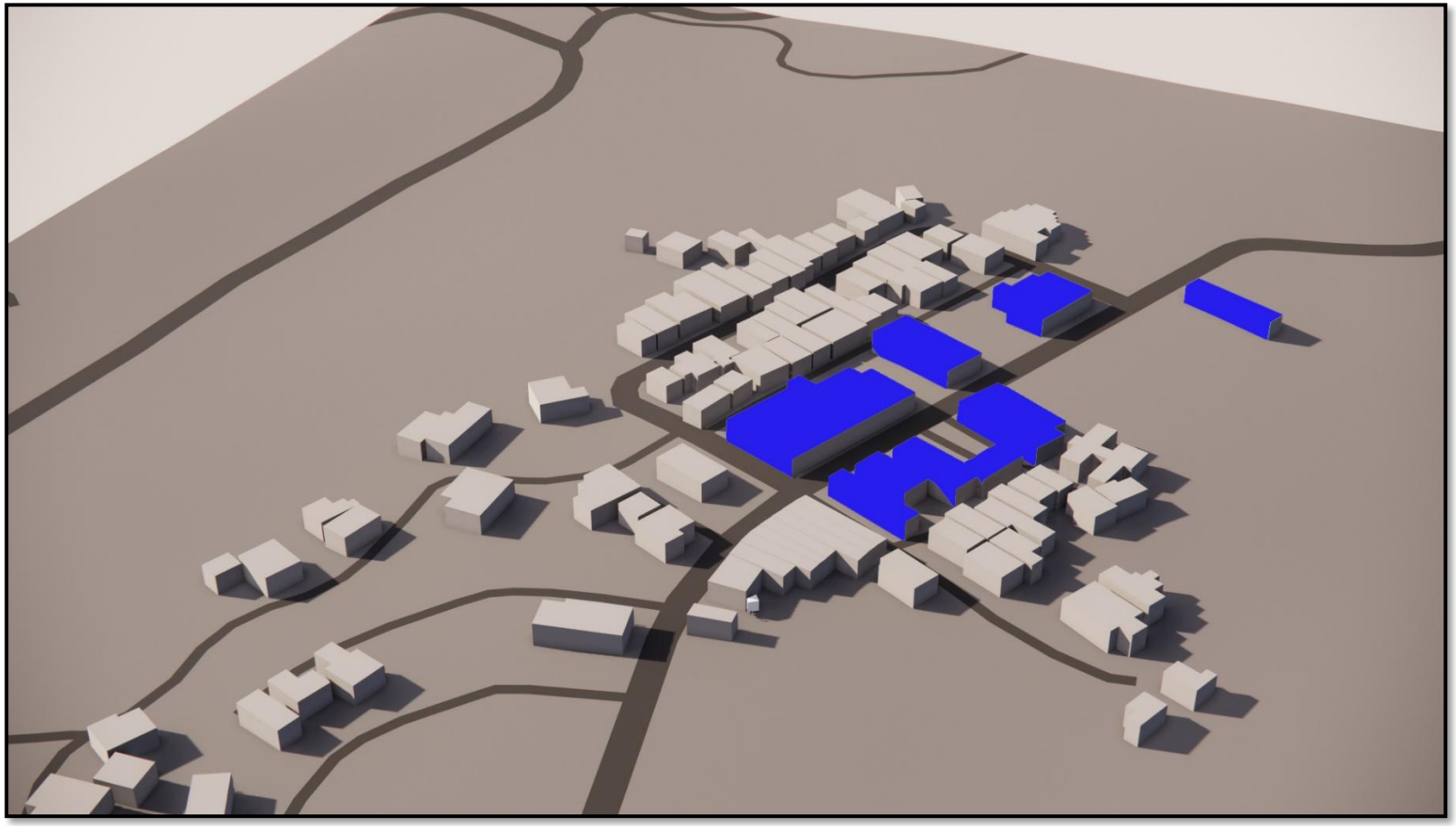


Figure 6.12 Diagrams Show Conservation Area at PCA1 (Pre-War Shop Houses Area)

Table 6.4

Conservation Strategies for PCA 1

No	Zone	Element	Action
1	PCA 1 Road along pre-war shophouses		1. Provision of proper pedestrian walkway facing the façade of old shophouses. 2. Provision of street furniture such as sitting, street lighting which have related image of the old shophouses 3. Maintenance of existing trees and new landscape which have similar image with the old shophouses
2	PCA 1 Pre-War shophouses which still occupied		1. Minor Preventive and preservation action should be taken in order to maintain its aesthetic and existing condition. 2. Maintain existing façade with minor changes and beautification at street and road shoulder

			3. . Provision of related street furniture and signage along five footways 4. Preservation of architectural detail such as roof tile, window, door & column. 5. Restoration of material should be the same with original features 6. Incentive for private owner on the building maintenance 7. Re-main as residential or can be adaptive reuse to passive activities and relate to culture of Papan 8. 7.Repainting work in standard colour scheme. 9. Remain the existing trees with proper maintenance.
3	**PCA 1** Abandon shophouses The external façade of pre-war shop houses which still maintain its original forms such as windows, columns and doors		1. Minor Preventive and preservation action should be taken in order to maintain its aesthetic and existing condition. 2. Maintain existing façade with minor changes and beautification at street, five footway and road shoulder 3. Provision of related street furniture and signage along five footways

			4. Preservation of architectural detail such as roof tile, window, door & column. 5. . Restoration of material should be the same with original features 6. Incentive for private owner on the building maintenance 7. Re-main as original form as historical essence to public 8. . Can be adaptive reuse to passive activities and relate to culture of Papan 9. Repainting work in standard colour scheme. 10. Remain the existing trees especially Banyan tree with proper maintenance.

4	The interior condition of Building no 1 (shows the existing material and spatial quality of the shophouses. Most of the structure especially at the upper floor have been deteriorate	 	1. Needs proper consolidation and restoration action to maintain its original structure and form. 2. Proper dilapidation survey is needed to ensure structural stability 3. Minor Preventive and preservation action should be taken in order to maintain its aesthetic and existing condition. 4. Maintain existing structure such as staircase with minor changes and beautification at street, five footway and road shoulder 5. Preservation of architectural detail such as floor tile, window, door & column. 6. . Restoration of material should be the same with original features 7. Incentive for private owner on the building maintenance 8. Re-main as original form as historical essence to public 9. . Can be adaptive reuse to passive activities and relate to culture of Papan 10. Repainting work in standard colour scheme. 11. Remain the existing trees especially Banyan tree with proper maintenance.



Figure 6.13 Existing Condition & Artist Impression on the Restoration Work Along Main Road at Pre-War Shophouses of Pekan Papan By Maintaining the Calmness of the Environment.



Figure 6.14 Existing Condition and Artist Impression on the Restoration and Adaptive Reuse at Pre-War Shophouses in Pekan Papan

6.11 Conservation Strategies at Primary Conservation Area 2 (PCA2)

The Selection of Primary Conservation Area 2 (PCA2) are based on the ethnic historical records which related to the opening of Pekan Papan. The Kampung Mandailing are the area which open earlier by Raja Asal which consist of Rumah Asal, Rumah Besar raja Billah, Masjid Papan and Rumah Bilal. From historical record there are 2 family houses built around but have been demolished and several kampung house were built besides Rumah Imam. Surrounding Rumah Besar, several family graveyards were found and believed to the family of Raja Billah (table 6.5, fig 6.15 – 6.17).

This area was evidence of the Mandailing clan and should be preserved as special conservation area by restoring the existing buildings and reconstruct the Kampung house based on the historical records as to create a Mandailing Cultural centre in Perak. The preservation of existing cultural landscape s is very important to remain its sense of place as Kampung area where Rumah Besar Raja Billah played an important role as landmark surrounded by wall and other buildings to create sense of welcoming to the area (fig 6.18-6.20).

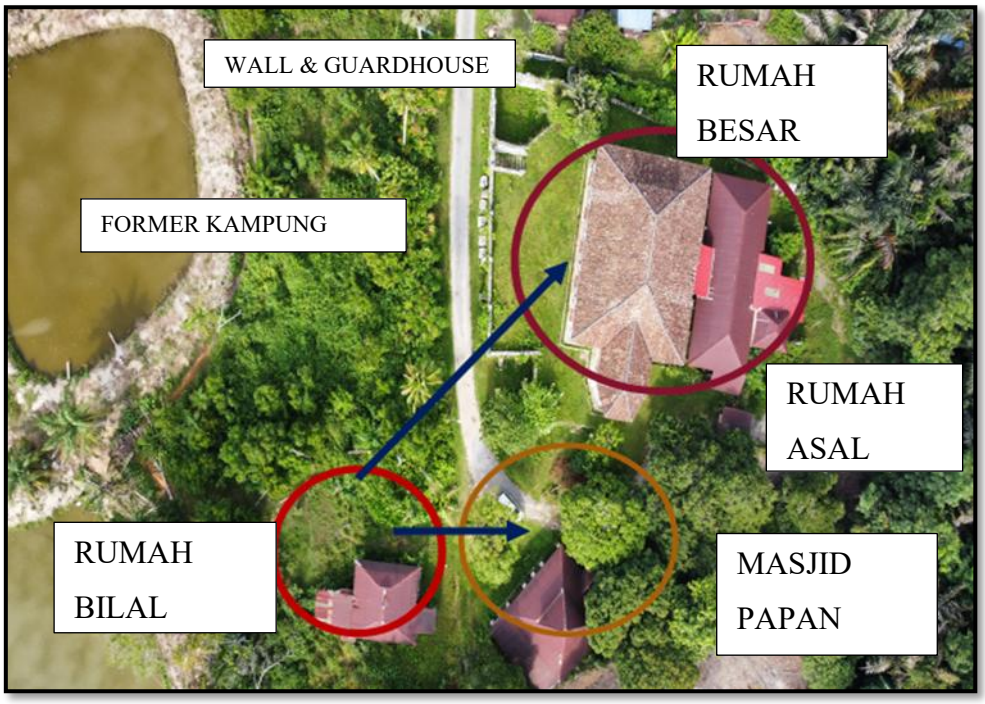


Figure 6.15 Primary Conservation Area 2 (PCA2) Consist of Rumah Besar as Landmark and Surrounding by Masjid Papan, Rumah Bilal and Existing Wall as an Image of Kampung Mandailing Area.



Figure 6.16 Aerial View of PCA 2 Shows its Relationships to Other Area which Make it as Potential Landmark for Pekan Papan.



Figure 6.17 Zoning of Conservation Area at PCA 2

Table 6.5

Conservation Strategies for PCA 2.

No	Zone	Element	Action
1	PCA2 Street to Kampung Mandailing		1. Provision of proper pedestrian walkway towards Kampung Mandailing. 2. Provision of street furniture such as sitting, street lighting with traditional concept which have related image of Mandailing 3. Maintenance of existing trees and landscape which have similar image with the kampung environment
2	PCA2 Gateway around Rumah Besar Raja Billah		1. Provision of proper pedestrian walkway facing the gateway 2. Provision of street furniture such as sitting, street lighting which have related image of Mandailing 3. Maintenance of existing trees and landscape which have similar image with Rumah Besar Raja Billah. 4. Maintenance and repainting of gateway wall.

			
3	PCA 2 **Rumah Besar Raja Billah** Existing condition at Rumah Besar Raja Billah which currently abandoned and in dilapidated conditions, most of the structure and roof started to deteriorate.		1. Minor Preventive and preservation action should be taken in order to maintain its aesthetic and existing condition. 2. Maintain existing façade with minor changes and beautification at yard and gateway. 3. Provision of related street furniture and signage along denai 4. Preservation of architectural detail such as roof tile, papan cantik decoration at window, door & column. 5. Restoration of material should be the same with original features 6. Incentive for private owner on the building maintenance 7. Re-main as original form as historical essence to public

			8. . Open to public and adaptive reuse to passive activities and relate to culture of Papan such as gallery, museum or info centre. 9. Repainting work in standard colour scheme. 10. Remain the existing trees with proper maintenance at the surrounding graveyard. 1. Restoration of existing material especially timber floor, trusses, columns are important where it started to deteriorate due to termite and water leakage. 2. The internal material such as painting, plastering and tile needs a constant maintenance since this building was left vacant for quite a long time. 3. Needs proper consolidation and restoration action to maintain its original structure and form. 4. Proper dilapidation survey is needed to ensure structural stability

			5. Minor Preventive and preservation action should be taken in order to maintain its aesthetic and existing condition. 6. Maintain existing structure such as staircase with minor changes and beautification at detail such as timber ornament. 7. Preservation of architectural detail such as floor tile, window, door & column. 8. . Restoration of material should be the same with original features. 9. Incentive for Mandailing clan on the building maintenance. 10. Re-main as original form as historical essence to public 11. Re open to public and can be adaptive reuse to passive activities and relate to culture of Papan 10. Repainting work in standard colour scheme

			
4	Rumah Asal		1. Minor Preventive and preservation action should be taken in order to maintain its aesthetic and existing condition. 2. Maintain existing façade with minor changes and beautification at yard/ 3. Provision of related street furniture and signage for information. 4. Preservation of architectural detail such as roof tile, window, door & column.

			5. Restoration of material should be the same with original features 6. Incentive for private owner on the building maintenance 7. Re-main as original form as historical essence to public 8. Can be adaptive reuse to passive activities and relate to culture of Pekan Papan such as operation office for Kampung Mendailing. 9. Repainting work in original colour scheme. 10. Remain the existing trees with proper maintenance to maintain kampung environment. 11. Reconstruction of Rumah Raja kamariah, Rumah Raja Rabeah and Rumah Raja Aminah based on historical record.
5	Masjid Papan &Rumah Bilal Existing condition at Masjid Papan & Rumah Bilal which currently abandoned and in dilapidated conditions,		1. Restoration of existing material especially timber floor, trusses, columns are important where it started to deteriorate due to termite and water leakage 2. Major Preventive and preservation action should be taken in order to maintain its aesthetic and existing condition.

	most of the structure and roof started to deteriorate.		3. Maintain existing façade with minor changes and beautification at yard 4. Provision of related street furniture and signage for information. 5. Preservation of architectural detail such as roof tile, *papan cantik,* window, door & column. 6. Restoration of material should be the same with original features 7. Incentive for private owner on the building maintenance 8. Re-main as original form as historical essence to public 9. Re-open as its original, function and relate to culture of Papan such as Islamic centre for Kampung Mandailing. 10. Repainting work in original colour scheme. 11. Remain the existing trees with proper maintenance to maintain kampung environment. 12. Provision of new facilities such as ablution area and toilet.



Figure 6.18 Existing Condition and Artist Impression on the Re-Open and Adaptive Reuse of Rumah Besar Raja Billah.



Figure 6.19 Existing Condition and Artist Impression on the Re-Open and Preservation of Masjid Papan



Figure 6.20 Artist Impression on the Interior Existing and After Adaptive Reuse of Rumah Besar Raja Billah.

6.12 Conservation Strategies at Support Area (SA)

Support area (SA)consists of Row house and single unit which formed Kampung Baru Papan built in 1964. The main purpose of its formation is to accommodate dwellings for tin mining workers due to the opening of tin mine no 2. In current conditions there are around 200 people live here and become a main community area in Pekan Papan. The distinctive elements are mostly at the middle alley where it is located at the rear side of pre-war shop houses and where Papan Heritage Gallery are located (table 6.6 & fig 6.21-6.22) Along this alley many placemaking activities done by local community for sake to preserve their culture and belief such as wall decoration, street mural. This area has potential as support area where most of the buildings could be adaptive re-use such as accommodations, commercial, souvenir shops, home stay where it could maintain and promote the local culture. Therefore, preservation of existing building such as building maintenance and renovation with a standard guideline could be implemented at this area (fig 6.23 – 6.25).

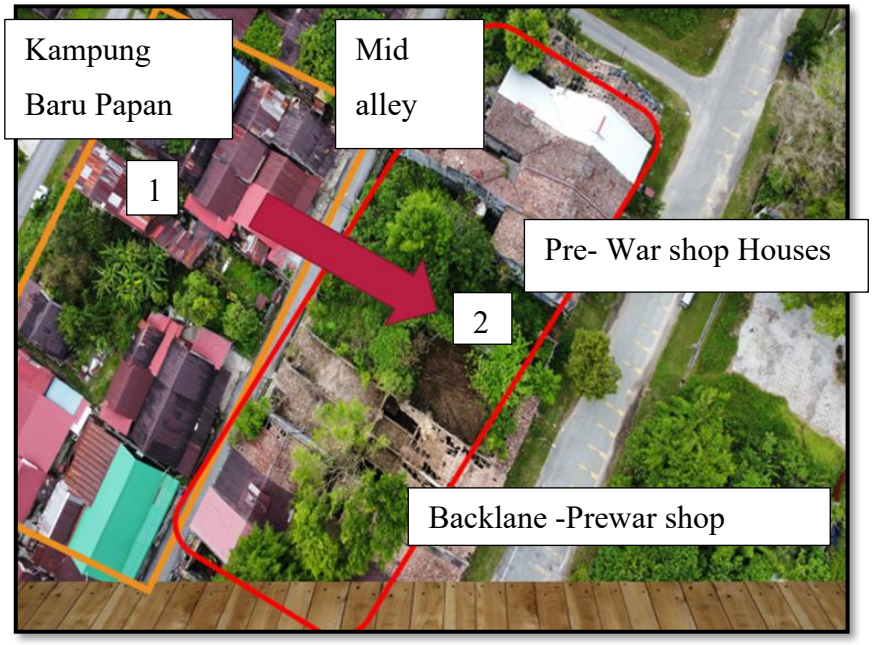


Figure 6.21 Conservation Area at SA Shows the Link Between Kampung Baru and Rear Side of Pre-War Shophouses which Located in Between the Middle Alley.



Figure 6.22 Zoning of Conservation Area at Support Area (SA)

Table 6.6

Conservation Strategies for Support Area (SA)

No	Zone	Element	Action
1	Support Area (SA) Kampung Baru Papan		1. Provision of proper pedestrian walkway and road maintenance along Kampung Baru Papan. 2. Provision of street furniture such as sitting, street lighting with local concept. 3. Maintenance of existing trees and landscape which have similar image with the local environment
2	Support Area (SA) Kampung Baru Papan Single unit housing		1. Renovation and maintenance action should be taken in order to maintain its aesthetic and existing condition. 2. Maintain existing façade with minor changes and beautification at yard, walkway and road shoulder. 3. Provision of related street furniture and signage along main road.

	Typical Interior of houses in Kampung Baru Papan. The existing use timber structure and high ceiling with the usage of atap rumbia and other traditional element such as sliding window and steel bar as window grill.	 	4. Restoration of architectural detail such as roof tile, window, door & column. 5. Restoration of material should be the same with original features 6. Incentive for private owner on the building maintenance 7. Re-main as original form as historical essence to public. 8. .Can be adaptive reuse to passive activities and relate to culture of Papan such as accommodations. 9. Repainting work in standard colour scheme. 10. Remain the existing landscape especially mining pond and yard as sense of cultural heritage of Papan. 11 Needs proper maintenance action to maintain its original structure and form. 12 Minor Preventive and preservation action should be taken in order to maintain its aesthetic and existing condition.

		 	13 Maintain existing structure such as roof truss with minor changes and beautification at interior space. 14 Preservation of architectural detail such as floor tile, window grill, door & column. 15 Incentive for private owner on the building maintenance. 16 Re-main as original form as historical essence to public 17 Can be remain as residential or adaptive reuse to passive activities and relate to culture of Papan such as accommodation operated by local, community. 18 Remain the existing trees especially at yard with proper maintenance

3	**SA** **Back lane** The view along houses and back lane/middle alley at Kampung Baru Papan which shows the community and cultural, values. Most of the back-lane façade of the pre-war shop houses have been decorated with paintings and recycle material as placemaking element.	  	1. Conservation Project suitable for placemaking at back lane of pre-war shophouse at Middle Alley. 2. The original space is the courtyard at rear side of shop house which in current condition are abandon and left with wild plants which grow at the roof and wall. Instead creating horrific mood, it became an attraction to the local community for a place of relaxation and soon became one of the attractions in Papan. 3. Method of construction on how to preserve the original wall features are important with addition on refurbishment of surrounding area considering safety factor to the public.

			4. Preservation of backlane to the original concept 5. Maintain existing structure such as roof truss with minor changes and beautification at interior space for rowhouses. 6. Row houses can be remaining as residential or adaptive reuse to passive activities and relate to culture of Papan such as information centre operated by local, community.



Figure 6.23 Existing Condition and Artist Impression on the Preservation Work and Placemaking of Backyard of Pre-War Shophouses.



Figure 6.24 Existing Condition and Artist Impression on the Placemaking of Backlane



Figure 6.25 Existing Condition & Artist Impression on the Adaptive Reuse of House at Kampung Baru Papan

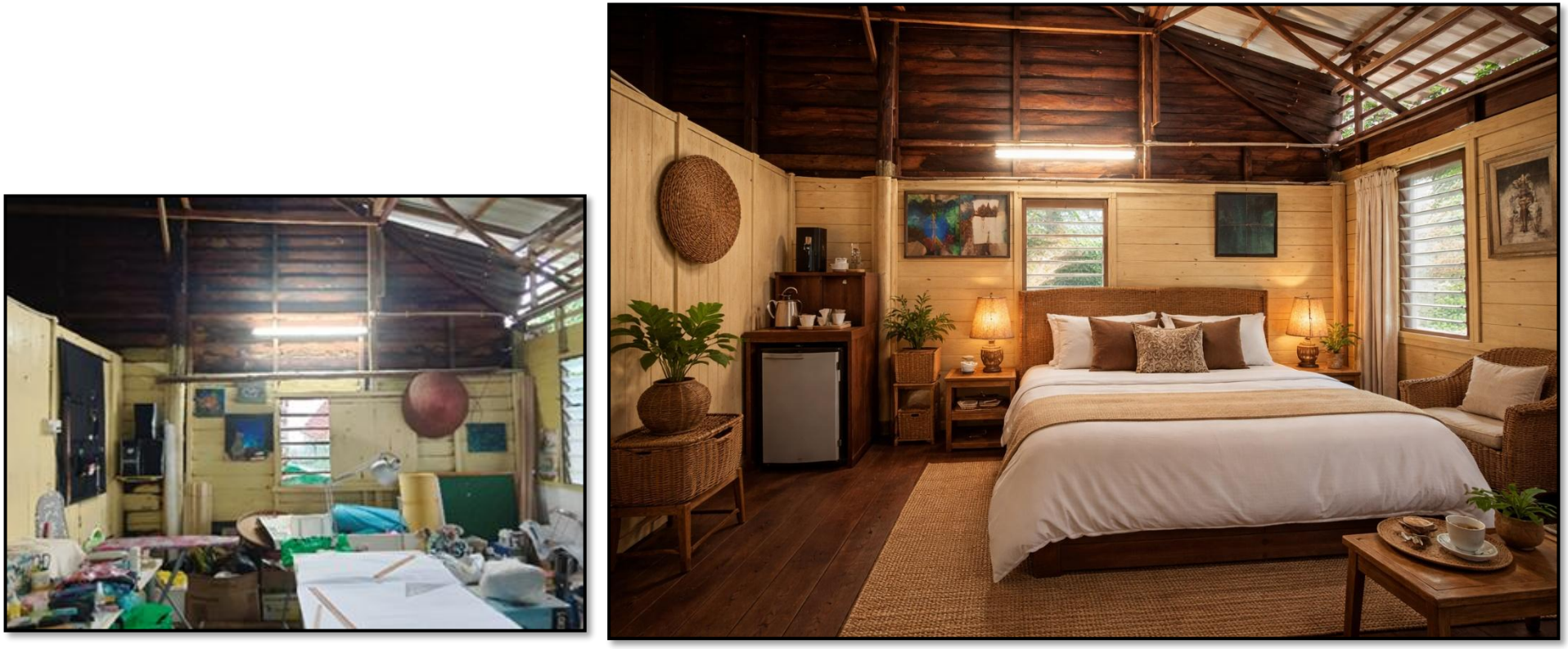


Figure 6.26 Existing Condition and Artist Impression on the Adaptive Reuse of House at Kampung Baru Papan

6.13 Validation of Proposal

The finding of this study was based on the objectives of the research which is to identify the tangible elements in Pekan Papan and how it could create appropriate conservation strategies based on recognition of physical character and the cultural heritage. From the observation at site on the current situation of town taking consideration of in-depth interview with experts and focus group discussion, the decision on creating strategies based on zoning in Pekan Papan was due to the multicultural factors where Pekan Papan are separated into community of Chinese and Mandailings. Based on discussion with Papan Heritage Group, there is a need on the management in Pekan Papan based on area occupied by local people where in present most of the operation was based on Kampung Baru Papan. The current issue in Pekan Papan mostly happened in Kampung Mandailing which it seems to be left behind due to the problem of ownership. The proposal of creating zoning area in Pekan Papan also based on the legibility study where it have defined the important and recognition of the physical element based on current activities and attraction in the town. The Pre-war shophouses are the most attractive area visited by tourist based on the history and aesthetic value of the built form and Kampung Mandailing are another attraction which based on its legacy of Malay heritage which still exist. In order to manage the place, area for operation is important where all activities such as information centre and commercial to support the management of the town. From this factor, the proposal has been discussed and agreed by Papan Heritage Group and JKKK. This proposal also has been forwarded to MDBG and still waiting for decision.

6.14 Action of Governance and Others in Conserving the Urban Cultural Heritage in Former Tin Mining Towns of Lembah Kinta.

The implementation of conservation strategies in Papan need a proper plan involving various parties, such as government sector, NGO and local community. From this research, the main strategy to conserve Pekan Papan have involved 3 sector which is the community area as focal point and community centre which role are to manage Papan. The attractions in Papan mostly based on the original physical features which still exist until today with its unique multicultural value of the Chinese and Mandailing.

The involvement of these two parties (Chinese community and Mandailing clan) are very important based on historical records and cultural heritage where they can give the ideas and opinion on the do and don'ts on the conservation strategies in Pekan Papan. For example, the pre-war shophouses in Pekan Papan was left for almost 100 years and the existing condition in could be referred to local community on the stability condition.

Participation from experts is important to create Heritage management plan and towards appropriate conservation guidelines in Pekan Papan. Based on Local Plan 2025 Majlis Daerah Batu Gajah, basic proposal and strategies was done to upgrade Pekan Papan as one of the attractive places in Lembah Kinta. However, a detail action plan which derive to appropriate conservation action plan should be taken with collaboration of local communities, experts and NGO. For example, MDBG has listed the pre-war shop houses to be developed as boutique hotel without considering the existing condition. The involvement and advise from other parties such as academician, registered conservators with collaboration with local community for example by doing a proper dilapidation survey is important in order to propose the appropriate conservation action for the pre-war buildings in Pekan Papan. Jabatan Warisan Negara have taken action by gazetting Rumah Besar Raja Billah as National Heritage Entity in 2018 but not for overall town due to ownership problem.

Since 2022, many effort have been taken from local community to create awareness on the conservation of Pekan Papan to the public from various programs and promotions such as Papan Heritage Walk on Malaysia Day 2021, and Papan Retro Walk on Malaysia Day 2022.Since then, a lots of programs have been arranged by NGO such as Papan Heritage Group, Perak Heritage Society, and UiTM Seri Iskandar to create awareness on the conservation effort in Pekan Papan. However, in present, Kampung Mandailing seems to be ignored due to lack of effort from the Mandailing community itself. A continuous action is important to ensure and avoid any over development which will ruin the authenticity of Pekan Papan. Therefore, s detail conservation guidelines should be created by academic institution, and governance as a reference for any development.

6.15 Problems and Limitation Faced by The Stakeholder and Authorities

The main problem faced by the stakeholder and authorities in conserving mainly dealing with land ownership and the current situation of buildings in Pekan Papan mainly at pre-war shop houses and Kampung Mandailing. Until now most of the pre-war shop houses has been leased to bank and buildings in Kampung Mandailing facing problem of land status where there many names have occurred as the ownership. Therefore, prompt action should be taken by local authority to determine its land status which will derive to proper conservation guidelines. A mutual agreement and collaboration between local community involving Chinese and Mandailing with local authorities and NGO is important to stabilize action towards conservation management plan. In present, Pekan Papan have been a political interest to be developed since it becomes popular to public and Kampung Baru Papan have been nominated as World Heritage Village under UNESCO. Therefore, an appropriate Conservation Strategies is important to determine the direction towards conserving the town. Pekan Papan is a quite unique where it was an abandon town and left behind, known as haunted town where nobody dares to visit. However, from the awareness program created by local community, it started became popular with new proposal of development which some of it tend to change the authenticity or original look of Pekan Papan. Development in Pekan Papan could not be the same as other old town such as Taiping, Gopeng or Ipoh where it has its own identity.

6.16 Implementation of Urban Cultural Heritage Conservation Strategies in Pekan Papan, Perak from the Physical Aspect as A Pilot Study to Other Authority

Perak have many former tin mining towns which still exist but yet abandoned and left in dilapidated conditions. Besides towns such as Ipoh, Kuala Kangsar, and Taiping which have been developed and known as heritage town small towns such as Siputeh, Lahad, Mambang Di Awan, Temoh and Kota Bharu facing the same problem with Papan where it was left with minor conservation program from the authority or just depends on the effort from local community. The urban conservation strategy in Pekan Papan have considered its physical characteristics which is the main source of tangible element and its relationship with intangible such as local and cultural activities. The

strategies also intended to conserve the original features of town physically and the local activities as an attraction to public which could remain the sense of belonging to the place. With the strategies, local authorities could use it as guidelines in conserving towns in Perak which mostly in abandonment condition.

6.17 Implementation of Urban Cultural Heritage Conservation Strategies to Safekeep Historical Significance for Future Generation.

Pekan Papan was a unique town which rich with its historically significant. It was one of the earliest tin mining towns which opened and facilitate with new urban system in the 18th century such as roads, sanitary system and buildings such as prison, police station and horse stable. However, the town was left abandoned for almost 50m years due to Japanese insurgency and the decreased of tin price. Pekan Papan also one of the old towns which have a multicultural value where the essence from ethnic especially Chinese and Mandailing still could be seen from its buildings and township which still exist until nowadays. With the implementation of the Urban Cultural Heritage Strategies, the involvement of the cultural value has been considered as the main factor especially on the separation of the conservation action plan. These areas will be managed by its local community, Kampung Baru Papan will monitor by Chinese community while Kampung Mandailing will be monitored by Mandailings. These groups will collaborate with governance and NGO such as local authorities (MDBG), Jabatan Warisan Negara, Perak Heritage Society, and academician to create conservation programs which aim to safekeep its historically significant through new masterplan, conservation program and development.

6.18 Implementation of Urban Cultural Heritage Conservation Strategies as Means of Protection Against New Development.

Pekan Papan is one of the former tin mining towns which still remain its original features in term of its cultural landscape, urban structure and architectural features. However, in present there are some renovation works done including building materials where façade and roof have been changed by using modern material which have changes its authenticity. In 2022, Pekan Papan have open its window to the public due to awareness program did by local community and generate interest from investors to develop Pekan Papan as one of the tourist attractions in Perak. Due to current situation, without proper control, the original features in Pekan Papan could be changed due to rapid development where new infrastructure, building usage and proposal which could transform Pekan Papan into a new modern heritage city and lost its originality. Therefore, the Urban Conservation Strategies could be a guide for the formation of technical guidelines for any development in Pekan Papan. These guidelines will consider all studies such as dilapidation survey, reports and Heritage management Plan for Papan involving all parties before any development could be implemented.

6.19 Implementation of Urban Cultural Heritage to Generate Source for Stakeholder.

In order to maintain Pekan Papan as one of the tourist attractions in Perak, funding and source of income are very important in term of operation and maintenance. In present most of the funding came from donation from local community and in Pekan Papan, there are 2-unit coffee shop who doing their daily business activities. From the Urban Conservation Strategies for Pekan Papan, the zoning of Conservation Action Plan will state the area which function as main attraction area. For example, the focal point area is the area where most of the commercial activities could centralized where local coffee shops together with other facilities such as souvenir shops, small boutique hotel and other shops could be located but still remain the local features and identity. (PCA1) & (PCA2) are the main attraction in Papan where the original features and activities should be maintained as an archaeological site based on its unique cultural values. The Support area in Kampung Baru Papan is the area where visitor could feel

the local environments where some of the units could be converted to home stays where people could feel the environment of housing for workers. With these strategies, variety of activities could be offered to public such as tourist, academician and historian which still maintain the original features of Pekan Papan.

6.20 Recommendation for Further Research.

This study could be further research involving former tin mining towns which have same situation with Pekan Papan. In Perak towns in Lembah Kinta such as Lahad, Siputeh, Kota Baru still left in abandonment and no action have been taken to conserve it. The same method could be used by finding its physical distinctive elements and its cultural activity to define the town's identity before making any decision whether the town is worth to be conserved. For Pekan Papan, this study has explored and produced a strategy for conservation considering the physical characteristics and its cultural heritage value. These strategies could be implemented into proper guidelines based on Local authority such as MDBG, guidelines on Heritage Building Conservation (JWN) and Heritage Management Plan Guidelines (Plan Malaysia) in term of special implementation or in field implementation by professionals such as consultants and academician. For Local Community, these strategies have involved an in m-depth interview which have considered their opinion and could be a source for further conservation efforts.

6.21 Conclusion

This research has examined the relationship between tangible elements derived from the distinctive physical characteristics of Pekan Papan, Perak, and their contribution to the intangible cultural heritage values of the town. The primary aim of the research is to establish an appropriate conservation strategy for abandoned historic towns by using Pekan Papan as a case study. Understanding the historical development, spatial structure, and existing physical characteristics of the town is essential in determining its identity, cultural significance, and sense of place.

Despite its current image as an abandoned town often associated with mystery and haunted narratives, Pekan Papan was historically a significant and prosperous tin mining settlement comparable to major mining towns such as Ipoh and Taiping. A key intangible value of Pekan Papan lies in its unique multicultural heritage, where the Mandailing community coexisted harmoniously with the Chinese community since the 18th century. This cultural coexistence played an important role in shaping the social, economic, and spatial character of the town until the period of insurgency and the decline of the tin mining industry.

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APPENDICES

APPENDIX 1

Soalselidik Kajian Ilmiah PHD

Nama Pelajar: Mohd Rifzal Bin Mohd Shariff

Respoden: Pn Mas Ayu

Jabatan: Jawatan Warisan Negara.

Institusi: Fakulti Senibina Perancangan dan Ukur UiTM.

Tajuk Kajian: CONSERVATION STRATEGIES OF FORMER TIN MINING TOWNS IN LEMBAH KINTA PERAK WITH REFERENCE TO THE PHYSICAL CHARACTERISTICS AND CULTURAL HERITAGE

1. Apakah kriteria yang diambilkira oleh JWN dalam pemuliharaan bangunan di pekan-pekan lama di Malaysia.

2. Apakah faktor-faktor pemangkin selain daripada fizikal (intangible) yang diambilkira oleh JWN bagi pemuliharaan pekan-pekan lama.

3. Apakah tindakan yang diambil oleh JWN bagi memulihara pekan-pekan lama yang ada nilai sejarah setempat.

4. Apakah kriteria yang dititikberatkan oleh JWN bagi pemuliharaan pekan-pekan lama dari aspek fizikal iaitu senibina, struktur perbandaran dan lanskap.

5. Dalam Rancangan Struktur Perak 2040, garispanduan telah diberikan terutamanya dari segi pemuliharaan bandar warisan sebagai salah satu aspek yang boleh menggalakkan pelancongan. Antara Pekan yang penting adalah Taiping dan Kuala Kangsar. Namun terdapat juga pekan-pekan kecil yang terkenal sebagai jajaran bijih timah seperti Papan, Siputeh, Lahad, Kota Bharu yang ditinggalkan using hingga ke hari ini.

   5.1 Apakah tindakan yang diambil oleh JWN bagi memulihara pekan-pekan tersebut.

   5.2 Apakah cabaran yang dihadapi oleh JWN bagi memulihara pekan-pekan lama di negeri Perak yang ada unsur sejarah setempat.

6. Pekan Papan adalah sebuah pekan lama yang mempunyai unsur sejarah sebagai antara pekan bijih timah terawal di negeri Perak. Di sini juga terdapat pusat pemerintahan kaum Mendailing dimana terdapat Istana Billah (telah diwartakan oleh JWN sebagai bangunan warisan) dan Masjid Papan. Pekan Papan juga terkenal dengan kisah legasi Sybil Kathiagasu berkenaan dengan sejarah kemerdekaan negara. Pada masa ini Pekan ini telah ditinggalkan using.

   6.1 Apakah tindakan yang diambil oleh JWN bagi memulihara Kawasan ini.

6.2 Apakah strategi pemuliharaan yang sesuai dari pandangan JWN.

6.3 Apakah masalah dan cabaran yang dihadapi oleh JWN bagi pemuliharaan pekan-pekan tinggal seperti Papan, Siputeh dan lahad.

APPENDIX 2

Soalselidik Kajian Ilmiah PHD

Nama Pelajar: Mohd Rifzal Bin Mohd Shariff

Respoden: Ms Ellie Ng

Jabatan: Papan Heritage Group

Institusi: Fakulti Senibina Perancangan dan Ukur UiTM.

Tajuk Kajian: CONSERVATION STRATEGIES OF FORMER TIN MINING TOWNS IN LEMBAH KINTA PERAK WITH REFERENCE TO THE PHYSICAL CHARACTERISTICS AND CULTURAL HERITAGE

1. Apakah Peranan Puan dalam pemuliharaan bangunan di Pekan Papan.
2. Apakah faktor-faktor yang difikirkan boleh menjana pemuliharaan di Pekan Papan.
3. Apakah tindakan yang diambil oleh Papan Heritage Group bagi menjaga pemuliharaan Pekan Papan.
4. Apakah Masalah yang dihadapi dlm memulihara Pekan Papan.
5. Apakah cadangan agar Pekan Papan dapat dikekalkan.

APPENDIX 3

Soalselidik Kajian Ilmiah PHD

Nama Pelajar: Mohd Rifzal Bin Mohd Shariff

Respoden: Mr Sundra Lingam

Jabatan: Jabt Warisan Majlis Daerah Teluk Intan

Institusi: Fakulti Senibina Perancangan dan Ukur UiTM.

Tajuk Kajian: CONSERVATION STRATEGIES OF FORMER TIN MINING TOWNS IN LEMBAH KINTA PERAK WITH REFERENCE TO THE PHYSICAL CHARACTERISTICS AND CULTURAL HERITAGE

1. Apakah Tujuan Tuan datang ke Pekan Papan.
2. Apakah perasaan Tuan pertama kali melihat Papan.
3. Peranan Tuan dalam pemuliharaan bangunan di Teluk Intan
4. Apakah faktor-faktor yang difikirkan boleh menjana pemuliharaan di Pekan Papan dibandingkan dengan Teluk Intan
5. Apakah tindakan yang dirasakan patut diambil oleh Papan Heritage Group bagi menjaga pemuliharaan Pekan Papan.
6. Apakah Masalah yang dirasakan akan dihadapi dlm memulihara Pekan Papan.
7. Apakah cadangan agar Pekan Papan dapat dikekalkan.

AUTHOR'S PROFILE



Mohd Rifzal B Mohd Shariff obtained his Diploma in Town and Regional Planning (1995) from UiTM, Bachelor of Art in Architecture (Hons.) (1998) from Huddersfield University, UK, and MSc. in Heritage and Conservation Management (2008) from the University Technology MARA (UiTM). His PhD thesis is establishing the Urban Conservation Strategies with reference to Physical characteristics and cultural heritage and the case study is in Pekan Papan, Perak. Recently he is working as a lecturer in Centre for Foundation Studies,International Islamic University Malaysia and have experienced working in Architectural firm which involved with conservation project such as Rumah Kelahiran Mahathir, and Istana Pelamin in Alor Setar, Kedah.

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