



**Faculty of Engineering**

**The Impact of Urbanization and Natural Calamity to the Demise of  
Malay Settlement Along the River Fringe:  
Case Study of Malay Settlement Near Budor River in Kelantan**

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The Impact of Urbanization and Natural Calamity to the Demise of Malay  
Settlement Along the River Fringe:  
Case Study of Malay Settlement Near Budor River in Kelantan

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## DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Malaysia Sarawak. Except where due acknowledgements have been made, the work is that of the author alone. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.



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## ABSTRACT

Human settlement issues are among the never-ending topics being debated. The studies on human settlements include multidisciplinary scopes including geography, sociocultural, economy, politics, and technology, making this field even wider in its study scope. Although various studies have been conducted on the issues of human settlements, the studies on Malay settlements are quite neglected. Initially, the Malay settlements existed within the vicinity of rivers as these were the main sources of living among Malay communities, including their transportation system. When Malaya achieved its independence, the development processes took place even more rapidly. The development at that time was more emerging and focused more on the urban areas. Owing to the infrastructure and facilities left by the British colonials, the urban population started to increase and thus escalated the demand for more urban settlements. Consequently, there was urban sprawl that targeted the Malay settlements at the river fringe. The situation was a threat to the settlements and the Malay communities due to the urbanisation processes, physically and mentally. From another perspective, natural calamity such as floods frequently happened and threatened the Malay communities. Without proper infrastructure, they were continuously hit with challenges in their lives and at their place of living. This study focused on the Malay settlements in Kota Bharu, Kelantan. This study aimed (i) to explore the impacts of the Malay settlements along the river fringe, (ii) to examine the pressures of urbanization and natural calamity on Malay settlements destruction, and (iii) to analyse the impacts of settlement destruction on architectural values and the future Malay settlements in the area. Eight Malay settlements in Kelantan River and Budor River were specifically selected as the case studies using a mixed method. Besides, a modern anthropology approach such as participant observation technique was combined with the observation techniques, visual analyses,

mapping, photo tracking, land survey, journal and historical documents, and random interviews with 35 respondents who had been living for almost three generations at the study areas. Other than that, a total of 350 respondents who were also the locals were randomly selected to answer a questionnaire. All data were analysed using SPSS V21 software and cross-examine with AutoCad 2020, Google Earth, Google Maps, Doxiadis' Theory of Five Principle in Human Settlements, and literature review. The study found that the Malay settlements that based their living on the river-based activities had totally been destroyed. Rivers were not the pride of the Malay communities anymore in developing themselves and their family economy. Moreover, the factors including natural calamity and urbanisation, plus the absence of the efforts from the government to preserve the Malay communities and their settlements in Kota Bharu, contributed to the destruction of Malay settlements that at the same time retarded the culture and identity of the Malays from enjoying the urban experiences. As a consequence, they were continuously living in challenges and found it difficult to compete with other races especially in terms of urban economies. Finally, they had to choose to either adapt with the urban development or move to other places. Although the approach of preservation of Malay communities has never been considered in Malaysia, this method is seen as an approach that could preserve the Malay settlements and communities to improve their neighbourhood quality and modern living, especially those living in the urban areas located in a rapidly developing country like Malaysia.

**Keywords:** Architecture, Malay settlement, natural calamity, urbanization, Kota Bharu

***Kesan Urbanisasi dan Bencana Alam Terhadap Kemusnahan Petempatan Melayu di Sepanjang Tebing Sungai: Kajian Kes di Petempatan Melayu Berdekatan Sungai Budor di Kelantan***

**ABSTRAK**

*Isu petempatan manusia merupakan satu topik yang tidak pernah selesai untuk diperdebatkan. Kajian petempatan manusia mempunyai skop yang merentasi pelbagai disiplin termasuk geografi, sosiobudaya, ekonomi, politik dan teknologi, lalu menjadikan bidang ini semakin luas untuk dikaji. Walaupun pelbagai kajian yang menyentuh isu petempatan manusia telah dijalankan, kajian mengenai petempatan orang Melayu agak terpinggir. Awalnya, petempatan orang Melayu wujud di sekitar sungai kerana ia merupakan sumber utama dalam kehidupan masyarakat Melayu termasuk dalam sistem pengangkutan. Setelah Tanah Melayu mencapai kemerdekaan, proses pembangunan semakin rancak dijalankan. Pembangunan pada ketika itu menjadi lebih pesat dan lebih tertumpu di kawasan bandar. Dengan adanya kemudahan infrastruktur yang ditinggalkan oleh penjajah British, populasi bandar mula meningkat dan menambahkan lagi permintaan petempatan di bandar. Akhirnya, rebakan bandar berlaku dan mengarah kepada kawasan petempatan orang Melayu yang terletak di tepi sungai. Situasi ini menjadikan petempatan dan masyarakat Melayu mula terancam dengan proses pempandaran, sama ada secara fizikal atau mental. Dari sudut lain pula, fenomena bencana alam seperti banjir kerap menjadi ancaman kepada masyarakat Melayu. Tanpa infrastruktur yang baik, mereka seolah-olah dihimpit oleh masalah yang terus membelenggu kehidupan dan tempat tinggal mereka. Kajian ini memberikan fokus kepada petempatan orang Melayu di Kota Bharu, Kelantan. Objektif kajian ini adalah (i) untuk menerokai kesan-kesan daripada petempatan orang Melayu di sepanjang pinggir sungai, (ii) untuk meneliti tekanan akibat pempandaran dan bencana alam terhadap petempatan orang Melayu, dan (iii) untuk menganalisis kesan*

*kehancuran petempatan terhadap nilai-nilai seni bina dan masa depan petempatan orang Melayu di kawasan berkenaan. Lapan buah petempatan orang Melayu yang terletak di tepi Sungai Kelantan dan Sungai Budor khususnya telah dipilih sebagai kajian kes dengan menggunakan kaedah campuran. Selain itu, pendekatan antropologi moden seperti tinjauan peserta telah dirangkum bersama teknik pemerhatian, analisis visual, pemetaan, jejakan foto, lukisan terukur, dokumen jurnal dan sejarah serta temubual secara rawak bersama 35 orang responden yang telah tinggal hampir tiga generasi di kawasan kajian. Selain itu, seramai 350 orang responden yang juga merupakan penduduk tempatan telah dipilih secara rawak untuk menjayakan kajian soal selidik. Kesemua data telah dianalisis dengan menggunakan perisian SPSS V21 dan disilangkan bersama perisian AutoCad 2020, Google Earth, Google Maps, Lima Prinsip Petempatan Manusia oleh Doxiadis dan tinjauan literatur. Hasil kajian mendapati petempatan orang Melayu dan kehidupan mereka yang berteraskan aktiviti sungai telah musnah sama sekali. Sungai tidak lagi menjadi sumber kebanggaan masyarakat Melayu untuk memajukan diri dan ekonomi keluarga. Tambahan pula, faktor bencana alam dan proses pembangunan serta tiadanya usaha pihak kerajaan untuk memulihara masyarakat dan petempatan orang Melayu di Kota Bharu menjadi penyumbang kepada kemusnahan petempatan orang Melayu sekali gus mematikan budaya dan jati diri Melayu untuk terus menikmati pengalaman bandar. Kesannya, mereka terus dihimpit dan sukar untuk bersaing dengan kaum lain terutamanya dari segi ekonomi bandar. Akhirnya, mereka perlu memilih sama ada untuk terus menyesuaikan diri dengan pembangunan bandar atau berhijrah ke tempat lain. Walaupun pendekatan pemuliharaan komuniti Melayu belum pernah dijalankan di Malaysia, kaedah ini dilihat merupakan satu pendekatan yang mampu memulihara petempatan dan masyarakat Melayu bagi*



*meningkatkan kualiti kehiranan dan kehidupan moden mereka, terutamanya bagi mereka yang tinggal di bandar di dalam sebuah negara yang rancak membangun seperti Malaysia.*

***Kata kunci:*** *Senibina, Petempatan Melayu, bencana alam, urbanisasi, Kota Bharu*

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