

Strategizing the Methodology in Assessing Malaysia's Heritage Urban River Corridor Landscapes

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Abstract. The river corridors of Malaysia's heritage river cities have long been contributing to the livelihood of diverse communities within these places. Recently, the speedy city development progress in Malaysia to accommodate the up to date cultural-based heritage economy, coupled with severe climate change and lack of community consultation in designing and developing the river corridors has made a difference to the landscape settings of these places. These have raised concerns among the local community, particularly the local workers who are depending on the resources along the river corridors. This paper explains the strategy in triangulating multiple research methods to identify and assess the important landscape character settings of Malaysia's urban river corridors, which are significant in the routine of the working communities at these places. The experiential landscape survey (ELS) – the phenomenological approaches in landscape assessment created by Thwaites and Simkins was tested. Three inter-connected processes that consist of Process 1 – defining preliminary river corridor boundaries, Process 2 – looking for relevant occupations and individuals (as participants), and Process 3 – identifying and assessing the significant landscape setting successfully strategized in this study. The outcome helps to assess the landscape character in relation to working communities' experience for heritage urban river corridors in Malaysia. It also expands the conventional landscape character assessment through multiple methods, including site observation, ELS, and interviews.

Keywords: river corridor, experiential landscape, heritage cities, working communities, Malaysia, Melaka City, Kuala Terengganu

1. Introduction

The Riverfront Development Guidelines [1] defined a river corridor in the Malaysian context as, “the river, including the area extending fifty (50) meters beyond the river reserve on both sides” (Figure 1). The definition clearly emphasized the condition of river corridor in form and position, with less information on the ecological and dynamic characteristics, which are essential to define the primary territory of these strips of land along river channels.



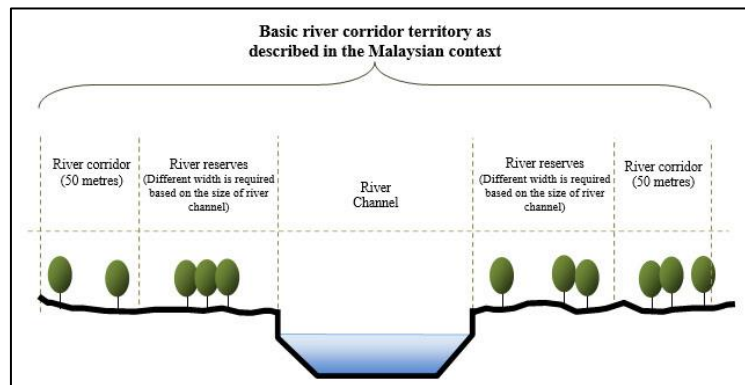


Figure 1. Urban river corridor territory according to the Department of Irrigation Malaysia (Source: adapted from [1])

A natural river corridor landscape is complex and it is tough to determine its boundary, as the river corridor territory can include various landscape settings and living systems connected to a complex river system [2–4]. A developed river corridor in different is significant as it offers more resources for urban communities to support their socio-economic, social, cultural and urban ecological needs in the contemporary living environment. Yet there is an outdated understanding among urban design teams (especially those between 1990s and early 2000s) that river corridors in Malaysia, generally, are just similar. This is reflected from their response in regards to the standard design and development applied in almost all of the urban river corridors and riverfront properties in this country. The disregard for the ecological characteristics of river corridors in the design process, combined with lack of enforcement in the design outcomes have resulted in many urban river corridors in Malaysia to be unsustainable and in an inferior standard of quality.

Recently in Malaysia, there is an awareness among urban managers and urban design teams to enhance the quality of the urban river landscape. This is because most of the urban river corridors are deemed as important and valuable assets to the urban community from diverse socio-economic and multi-ethnic backgrounds. Unfortunately, there are limitations to the current approaches in looking for the main stakeholders whose livelihood and working routine are depending on the values offered by the urban river corridors. Yet, their uncommon experience and understanding of the river corridors can assist the urban design teams in developing a better design outcome for community's important landscape settings. Urban design teams, therefore, need a powerful method to assist them in acquiring community consultation and public participation to gain insights into the important landscape settings among the community. This paper attempts to discuss the inter-connected processes developed and strategized for this study. Qualitative methods were chosen to assess the vital landscape character settings of the selected urban river corridors, as distinguished by the working communities of Malaysia's heritage river cities. The processes utilized are useful to strengthen the landscape design process for the river corridor landscape development in these cities.

2. Methods

This study adopts the experiential landscape concept - a phenomenological technique in the landscape character assessment (LCA) created by Thwaites and Simkins [5] to identify the landscape settings that are crucial in influencing the routine among working communities of the urban river corridors in heritage river cities of Malaysia. The experiential landscape concept consists of these elements – center, direction, transition and area [5]. Therefore, this study attempts to evaluate the people's important landscape settings according to the local context.

2.1 Research areas

Two urban river corridors in two prominent heritage river cities of Malaysia were chosen for this study. One is located at Melaka City while another one is situated at Kuala Terengganu (Figure 2, 3 and 4). The selection of these areas is based on the following criteria:

- They have significant growth in terms of historical, ecological and physical development contexts;
- they are a living niche for the local communities, who come from various cultures and socio-economies;
- the rivers in these cities are outstanding in influencing the physical, social and cultural development for the research areas; and,
- they have similar characteristics in terms of:
 - situated in historic cities and geographically located at an estuary area;
 - in the jurisdiction of the city council;
 - experienced expeditious urbanization, cultural-based development and active tourism-oriented development; and,
 - possessed established river corridor design, development, and management activities.



Figure 2. The research areas in Peninsular Malaysia, as shown in red dots: (1) Melaka City and (2) Kuala Terengganu (Source: [6])

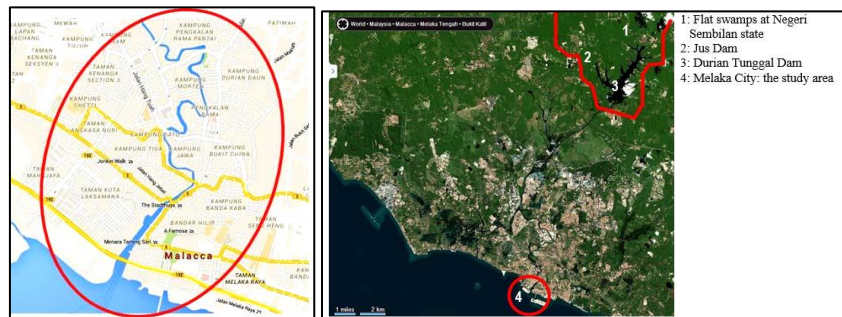


Figure 3a & 3b. The research area at urban river of Melaka City (left) and Sungai Melaka’s river system (right) (Source: [7,8])

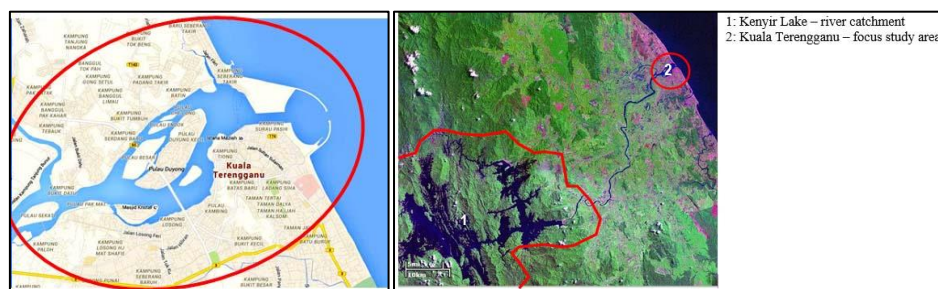


Figure 4a & 4b. The research area at urban river of Kuala Terengganu (left) and Sungai Terengganu’s river system (right) (Source: [7,8])

This study involved two stages of fieldwork activities, each stage was designed with different aims.

2.2 Stage 1 Fieldwork

The Stage 1 fieldwork is aimed at identifying relevant occupations in terms of working scopes, activities, and routines that are related to the sources offered by the urban river corridor landscape in Melaka City and Kuala Terengganu. This stage also aims to distinguish and select relevant individuals who are involved in the identified occupations before inviting them to participate in this study. This study had also gathered information from the Internet and on-site to achieve the aims of Stage 1 fieldwork. Information drawn from this stage was used to construct two primary tools for the study, which are further used to support data collection activities in Stage 2 fieldwork, involving ELS and semi-structured interview sessions.

2.2.1 Exploring and gathering information via the Internet and local publication. This study has used the Internet and local publications as the primary medium to explore the site since the researcher involved is an outsider and had little understanding about the condition in the research areas. Google Earth, Flickers, Facebook, blogs, websites and Instagram provide free access to satellite images, image-based social media networks and web resources, to be used as the reference for online site exploration. With the abundant resources from the Internet, the significant areas in terms of physical and cultural aspects (exposed to the public and promoted online) within the heritage urban river corridors were identified. The online exploration has helped the researcher make reflection and understand the condition of the research areas from the surface. Also, this has assisted to get prepared prior to the next exploration stage, need to be done on site.

2.2.2 On-site exploration and familiarization. In the next stage, this study involved on-site exploration and familiarization activity. The the research areas are unique. Therefore, the areas need to be explored intensively to support the familiarization activity within the heritage urban landscapes. Some types of equipment were made ready to aid the on-site tour and familiarization attempt in both research areas:

- Site map with the up-to-date information;
- Data recording equipment such as Nikon digital camera, cam-corder, Sony voice recorder, broadband, fieldwork checklist, notebook, stationeries, and appropriate clothing attire for conducting survey works;
- Itinerary for survey activities; and,
- Personal transportation and assistants.

In this stage, various transportation modes were utilized, including walking, driving, and using public transport available on sites, such as river cruise boat and trishaw.

2.3 Stage 2 fieldwork

The Stage 2 fieldwork was more focused on strategizing process to identify and assess the landscape settings of the research areas using two survey techniques; ELS and interview.

2.3.1 Experiential Landscape Survey (ELS). ELS involves touring and scrutinizing the participants' experiential landscape in their working ground in order to seek and evaluate the landscape settings that play a part in their earning. ELS was conducted to follow their journey based on their working routine at their urban river corridor ground.

2.3.2 Semi-structured Interview. This approach is used to look into the relationship between studied working communities and their living landscape [9,10]. Five sets of questions were designed for the interview to gain insights into five working community groups in Melaka City and Kuala Terengganu. The participants were selected among the insiders who have been working for a living there. They were also chosen from diverse occupation background (from professional to general worker level) where the nature of their job routine has a significant relationship with the river in the research areas. They are

urban manager, city journalist, tourist guide, boat skipper and rickshaw puller. The questions were developed in Malay and English languages to cater to their native tongue preference. This study employed thematic coding, open coding and map overlay in analyzing the interview feedbacks and ELS data to identify the crucial settings based on the experiential landscape theory.

3. Outcomes

There are three inter-connected processes that are successfully strategized in this study has, as part of the processes to assess the working communities' important landscape character settings:

- Process 1 – Strategizing online exploration activities
- Process 2 – Strategizing Stage 1 fieldwork activities
- Process 3 - Strategizing Stage 2 fieldwork activities

3.1 Process 1 - Strategizing online exploration activities

Five activities were outlined in this process, to assist in defining the preliminary research boundary of the urban river corridor sites in Melaka City and Kuala Terengganu (Figure 5). Online exploration activities were conducted from a distance, which is a unique yet critical process. Since the researcher is not familiar and has limited access to both areas, this process contributes to the development of the next processes.

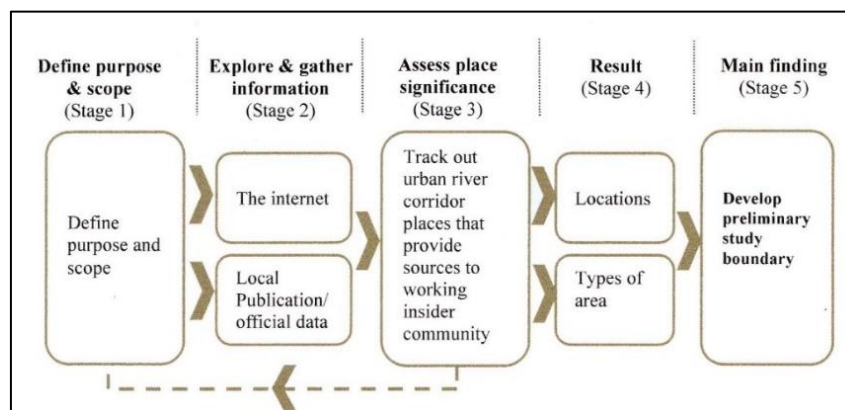


Figure 5. Process 1 - Strategizing online exploration to develop and define the preliminary research boundary of the studied urban river corridors in Melaka City and Kuala Terengganu.

The boundary in this study was established to the areas where the research participants (urban design team and special interest individuals) with relevant occupations were found. The defined research areas show that the heritage urban river corridor landscapes in Melaka City and Kuala Terengganu are unique, and thus require intensive exploration that is deemed practical in both areas.

3.2 Process 2 - Stage 1 fieldwork activities

3.2.1 Strategizing Stage 1 fieldwork activities. Process 2 - the stage 1 fieldwork 1 is to guide in identifying the individuals with relevant occupation as the research participants within the defined research areas. It is also for the researcher to explore, discover, and get familiar with the working routine of the locals in the dynamic and complex urban river corridor landscape (Figure 6). The initial findings were obtained from two groups; i) urban design teams and ii) special interest individuals.

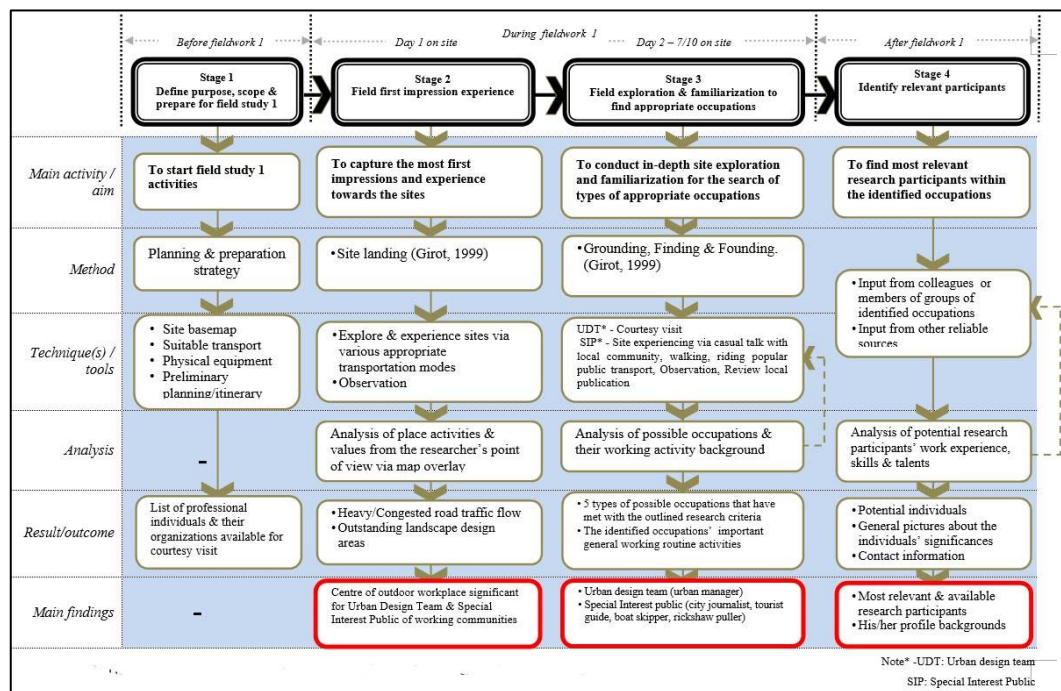


Figure 6. Process 2 - Finding individuals with relevant occupations as the research participants

There are four activities in Process 2 that cover the durations before, during and after fieldwork activities; i) to define purpose, scope and prepare for the field work 1; ii) the first impression of the research sites; iii) field exploration and familiarization to identify appropriate occupations and, iv) to identify relevant participants.

3.2.2 Process 2 - Stage 2 – First impression of the research sites. In Stage 2, the researcher recorded her impressions of the views, ambiance, reactions, ideas, feelings, and understanding of the place (research areas) during the first visit, using the landing approach by Giro [11]. The landing technique is necessary because it makes use the researcher's experience as an outsider of the places, as an expertise (the researcher background as a landscape designer), and the researcher's sense of curiosity about the place during the first visit, The purpose is to identify the indicators of places that are regarded as the centre of outdoor workplaces, which are to the working communities, especially the urban design teams and special interest public.

3.2.3 Process 2 - Stage 3 – Site exploration and familiarization to track down appropriate occupations. Stage 3 involves critical site exploration, observation, and familiarization activity with the defined working communities working ground. The purpose is to track down appropriate occupations as well as individuals among the urban design teams and special interest groups as the research participants. The researcher identified the urban river corridors locations and characteristics that are deemed significant for the participants to earn their livelihood. In stage 3, this research applied grounding, finding and founding techniques introduced by Giro [11]. The research participants are the individuals who are knowing well the study sites and have active working routines within the study areas. The criteria to select the relevant participants are as follows:

Urban design team members:

- currently attached to the city council as part of the urban design team in the research areas; and,
- involved as decision makers in developing the urban river corridor landscape within the research areas.

Special interest public members:

- actively operating within the research areas (either at Melaka City or Kuala Terengganu);
- who are familiar with the research sites; and,
- in contact with the public in particular places through their daily working routine activities.

3.2.4 Stage 4 – Identify the relevant research participants. This stage involves finding and selecting the most appropriate insiders of the occupations as participants based on the below criteria:

- have significant work experience and achievement in their field; and,
- possess broad proficiency of their landscape settings based on the relationship they have with the research areas via their working routine.

Ten insiders (five participants for each research area) representing the identified occupations were found to be the most appropriate participants. They have been suggested by their colleagues. Overall, this process enables the identification of:

- the ground centre for the working communities;
- relevant occupation; and,
- competent individuals (from the discovered occupations) as research participants.

3.3 Process 3 – Strategizing Stage 2 fieldwork activities

Process 3 is to find and evaluate the landscape settings via four main activities: i) to design experiential landscape survey (ELS); ii) to develop ELS brief description and to arrange a tour; iii) to administer ELS with the participants; and, iv) to classify and describe.

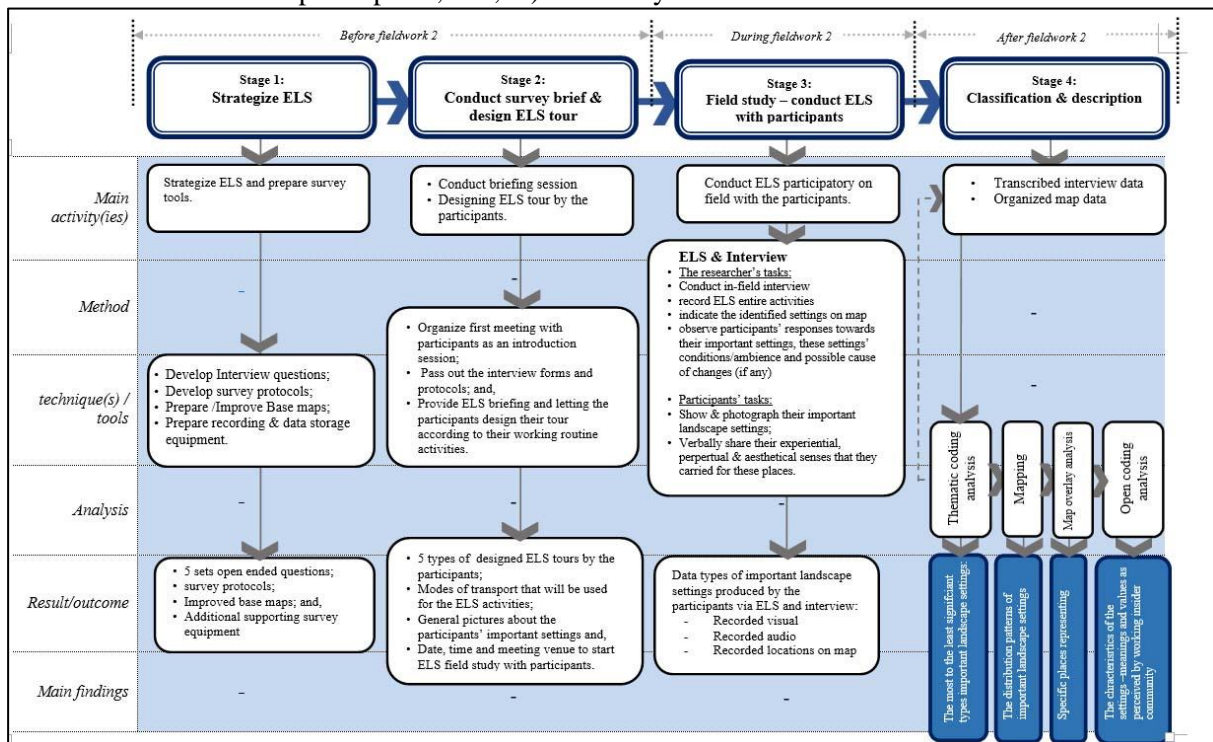


Figure 7. Process 3- Indicating and evaluating the important urban river corridor settings with the identified research participants.

3.3.1 Stage 1- Strategize ELS. ELS was used as the main approach to reinforce Stage 2 fieldwork. The field study would be conducted by identifying participants with the actual outdoor working ground in river corridors of the research areas. ELS involves touring and studying the participants' experiential landscape within their working range to discover and evaluate the landscape settings that important and have contributed to their earning. Interview questions for ELS were provided to escort their journey

based on their working routine at the studied areas. This is matching with the concept of experiential landscape in investigating and scrutinizing human experience in a landscape because based on Thwaites and Simkins, “this is the reality of how places are experienced” [5].

The tools used to support the ELS approach are:

- a) interview questions, base map as well as tape/video/recording devices; and,
- b) ELS protocols – sets of rules in the survey, established to facilitate the survey activities that cover three sessions; before, during, and after the ELS activities.

3.3.2 Stage 2 – Organize briefing session and planning ELS journey with the participants. At stage 2, the researcher arranged a briefing session with each of the participants before undertaken the survey activity according to their preferred schedule. A set of ELS tools that consist of protocols, semi-structures interview questions, consent form, and the site base map was been given to them during the meeting. The tools did also help in giving some ideas to them about how ELS activity will be conducted and types of data that need to be obtained. The participants have also been requested to propose the ELS tour according to the exact journey that they have been taken while conducting their job in the studied area.

The session at this stage allows the researcher to:

- uncover the participants’ sense of interest and capabilities, whether they are keen to be committed in the survey or not;
- gain introductory information about the places; and,
- obtain a preliminary tour plan designed by the participants based on their daily job routine at the urban river corridors in these cities, as well as the recommended transportation modes for the ELS activity.

3.3.3 Stage 3 – Conduct ELS with the participants. Stage 3 involves conducting ELS and interviews to find and evaluate the landscape settings at the urban river corridors deemed important by the participants. Most of the sessions were conducted in Malay.

3.3.4 Stage 4 – Classify and describe. Stage 4 involves arranging and mapping the landscape settings that important to the participants according to the experiential landscape characteristics developed by Thwaites and Simkins [12]. The characteristics that emphasize values and meanings of the settings were revealed and described by them. Three categories of analyses were undertaken including thematic analysis, mapping and general map overlay, and open coding. Overall, Process 3 leads to the main findings of this research:

- the best to the slightest landscape settings which are outstanding and momentous to the working communities;
- the settings’ characteristics;
- the usefulness and intrepitation of the settings from the working insider communities’ perspective and experience with these places;
- the distribution of working insider communities’ important urban river the settings.

4. Discussion

This study has successfully strategized and undertaken three processes in evaluating the working communities’ relevant landscape character settings of the urban river corridors via human experience as shown in Figure 8.

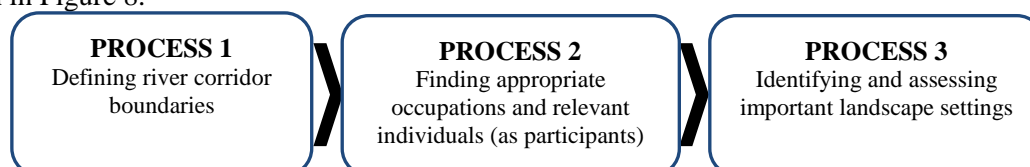


Figure 8. The flow of the three major methodological processes for this research.

This study also demonstrates that the triangulation of multiple techniques is significant in supporting the assessment process as highlighted in Figure 9. Observation, exploration, and interview are the main procedures conducted by the researcher were used to define the research area preliminary boundaries. Observation and interview approaches were further used to identify the individuals with relevant occupations as research participants. Meanwhile, ELS is the primary technique, which is based on the evaluation of key users (represented by the research participants as the working communities) was applied to appraise the essential urban river corridor settings from the users' experience.

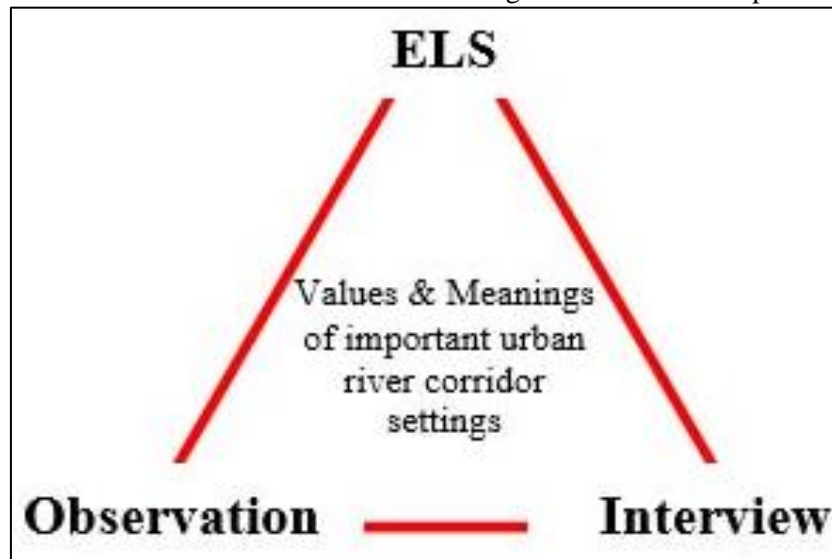


Figure 9. The main idea of the multiple method triangulation used in the assessment.

In general, the assessment processes have further advanced the conventional landscape character assessment (LCA). This study has engaged stakeholder participation covering extensive areas of the urban river corridors. The locals are highly included in assisting the expert in understanding their important landscapes. This research has also found the diverse working communities who have worthwhile experiences and unique knowledge of what is relevant in the urban river corridor settings, which worth to consider in supporting urban design team's design decision making.

5. Conclusion

The development of the processes involved in this study has further extended the landscape character assessment (LCA), by factoring in community feedback to enhance the recent landscape design for the forthcoming development of urban river corridor in Malaysia. Indeed, this study has come out with a new approach for the Malaysian urban design teams to evaluate the landscape settings that are crucial yet significant for diverse working communities via experiential landscape survey (ELS). In particular, this study reveals the working communities' reliance on the landscape character to earn a living in the urban river corridors of the heritage cities.

Acknowledgments

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