

## **Expression of Interest and Announcement to invite quotations**

Based on the aims of the Muziris Children's Museum at Pattanam and concepts provided below, detailed proposals and quotations for digital display units/programmes (full execution including hardware and software and installation) are invited from interested agencies for the KCHR Children's Museum at Pattanam.

### **Aims of the Muziris Children's Museum**

The Museum aims to sensitise the younger generation on the possibilities of cultural refinement by offering them exciting journeys at an archaeology site. We hope to encourage their curiosity and scientific temper to reach out for human cultural roots. The plethora of artefacts excavated from Pattanam provides a great opportunity for this intellectual journey. The Children's museum therefore is conceived as a learning and thinking space; not only for kids but also others interested in such voyages.

The museum exhibits artefacts and features tentatively from five cultural periods revealed through Pattanam excavations- Iron Age (IA), Iron Age-Early Historic Transition, Early Historic, Medieval, and Modern. The Early Historic (EH) period (3rd c BCE - 5th c CE) was the peak phase of Pattanam in terms of its trade, cultural and technological exchanges with different regions in the Indian Ocean as well as in the Red Sea and Mediterranean littoral. This period - the Muziris phase - was probably the first urban phase in the history of the region then called as 'Tamizhagam' which constituted the kingdoms Cheras, Pandya and Cholas.

This phase has a global significance because Pattanam or Muziris played a critical role in the 2nd phase of urbanisation or first phase "globalisation" in human history.

The museum has a creative corner for children to engage in their own ways with artefacts, activity sheets and play traditional board games. They can see a documentary on Pattanam Excavation Methodology and even enjoy a cycle ride in Pattanam village.

### **Digital display objective**

This part should attempt to narrate the story of human journey through the following milestones till the 2nd urbanisation phase in which Muziris/Muciri Pattanam/ Pattanam (Periyar River Valley culture) played a critical role.

Aims to suggest Muziris as the Maritime Queen of the Old World.

### **Themes to be familiar with:**

Nine seasons of Pattanam Excavations: the artefactual assemblages, the geographical location, the natural resources, the technological advances and maritime network of ancient ports and those intersected at Pattanam, Green Archaeology, Indian Institute of Archaeology, Archaeology Internship Programme, International Research Fellowships.

**The quality of the product should be in line with world class competitors.**

## **A. Interactive Ideas**

### **1) Interactive screen with multiple activities for children**

- Based on the team's interest to focus on the various methods of pottery making, glass making, stone working etc.

- Requirements -

- One long touch screen consisting of 3-4 smaller units placed together
- 3-4 smaller touch screen units placed separately throughout the museum.

**Concept:** The children should be able to interact with the screen using their hands (See this:<https://www.youtube.com/watch?v=LJPxyWM9Ujg>) and access a variety of different informative puzzles. Similar to a jigsaw puzzle, but following archaeology methods, the children may be helped to recreate Pattanam Pot (for example an Amphora) in a 3D space to create the right shape. This is similar to how pottery is recreated by Archaeologists from fragments of rims and toes or bottom parts. In the same manner, glass making and stone working may also be made.

Another activity can be one wherein children will be able to create their own necklaces by selecting a variety of beads in different colors that were specific to those unearthed at Pattanam and stringing it together on the screen.

## **2) 360 degree Virtual Experience**

- To focus on the Pattanam excavation method

**Concept:** The children may be able to witness a detailed and realistic excavation process in a virtual 3D space. The excavation process can be a short animation video that is informative and allows the children to look around the environment by moving the direction of their head. When they look around, they may also be able to read information about the various processes and tools used in the excavation. A voice over can also be implemented within the video.

## **3) LED Display Screen + Interaction of children pouring in small vials of sand into a pocket provided**

- Based on KCHR team's interest to showcase the Pattanam site formation

**Concept:** The group of children can be given small vials (or small cups etc.) filled with sand at the beginning of this activity. They can be asked to pour the sand into a small pocket extension attached behind the screen. Once all the children have poured a little bit of sand in, they can be asked to step back and the LED screen begins to display the animation that explains the different Pattanam layers in chronological order. Pattanam cultural is circa 4 m thick and has five cultural layers from 1000 B C to A D 2000.

## **4) VR Canoe Ride with Manimekhala of Pattanam (like the Maya of Mohanjidaro by Mulk Raj Anand)**

- Based on Curatorial team's interest using Virtual Reality to engage the children in a ride that may be both informative and fun

**Concept:** To create a canoe seating area in the current activity space at the museum. The children can sit on the fabricated canoe and experience an engaging virtual canoe ride with the fictional character, In the virtual world, Manimekhalawill explain the history of Pattanam to the child as the boat travels through inland water passages. The ride will be an engaging experience as the boat will travel over water currents, speed up and slow down, swerve/skim past corners and so on as Manimekhala explains the story of Pattanam.

#### **5. Interactive VR with multiple excavation tools**

- Based on KCHR Curatorial team's interest to let children experience the excavation process for themselves in a virtual world -

**Concept:** The child can actually experience and take part in the excavation process in the virtual world. They can select the tool of their choice from a set of Pattanam tools after being provided information on what each tool does. Based on the tool of their choice, they can chip, dig, smoothen different aspects of the trench site etc.

#### **6. Other touch displays**

- To provide touch displays around the museum that explain various elements of Pattanam.

### **B. Non-Interactive Ideas**

#### **1) 3D animation - Projection above known world map**

To narrate the story of human journey through the following milestones till the 2<sup>nd</sup> urbanisation phase in which Muziris/MuciriPattinam/ Pattanam (Periyar River Valley culture) played a critical role.

Milestone No.1 - The dissemination of humanity to the 7 continents of the world from Africa, from around 70,000 years BP.

Milestone No.2 - Wandering humanity settles down on the banks of the river systems with the beginning of agriculture around 10,000 years BP.

Milestone No.3 - The first urban phase in human history at the various river valley locations 1. Chinese Civilisation (Huang Ho Valley) Indian Civilisation (Indus Valley), Mesopotamian Civilisation (Euphrates and Tigris), Egyptian Civilisation (Nile Valley) and Mayan Civilisation (Usumacinta and Grijalwa Valleys of Central America) from circa 5,000 BP.

Milestone No.4 - The second phase of urbanisation accentuated by the discovery of iron and maritime technology fuelled by trade winds from 500 BCE onward.

Milestone No.5 - The emergence of silk, spice and aroma maritime roads transforming the Indian Ocean into a trade lake from 3,00 BCE onward.

Milestone No.6 - The emergence of Roman Empire propels the regional maritime roads into trans - oceanic trade network linking Asia, Africa and Europe (Indian Ocean, Red Sea and Mediterranean) from 1<sup>st</sup> c BCE.

## **2. The trade exchanges of the Old World**

- Based on curatorial team's interest to highlight maritime trade between 1<sup>st</sup> c BCE and 3rd c CE)

**Concept:** To project the OLD WORLD (continents of Asia, Africa and Europe) on the wall above the actual displayed map (Peutingar Map) at the museum. The projected world map can show the two way routes and sailing of ships in the map itself from port to port with information about the exports, imports, time taken and influence of different trades and cultures on Pattanam and vice versa. This can also be interspersed with graphics and animations, like a massive ship sailing on choppy waters, to add to the attraction factor.

(this can be integrated into the first 3d animation).

## **3) Holographic Displays**

This is to provide an exciting experience for the visitors to understand a select number of artefacts inside a holographic display unit/s and have information going on within them.

## **4) Projection on Artifacts**

Having an overhead projection can make the museum visit very valuable. We want this, employing the latest technology necessary for the same. For example, to have a video playing next to a beads assemblage that describes how it was found.

## **5) Self detecting holographic display - Assembly and discovery of artifacts**

To place a replica of an artifact within the holographic box. It needs to be show how this artifacts came to be found and assembled.

Detailed proposals alongwith estimates may reach the undersigned before September 15<sup>th</sup> 2016 for Phase 1. (B1, B2, B3, B5) , Sept 30<sup>th</sup> 2016 for Phase 2 (A1, A2, A3, A5, A6, B4) Oct 15<sup>th</sup> 2016 for Phase 3 (A4, A6)

For details, visit [www.kchr.ac.in](http://www.kchr.ac.in); Contact numbers: 0471 2310409, 9447137651

Director  
Kerala Council for Historical Research  
VyloppillySamskrithiBhavan, Nalanda  
Thiruvananthapuram - 695 003