CHAPTER 2 RESEARCH TOOLS AND DATA COLLECTION

PARTI

2.1 TOOLS OF RESEARCH

Qualitative approach to research is concerned with subjective assessment of attitudes, opinions and behaviour (Kothari 2004). Qualitative research tends to examine problems from the perspective of the individual participants, using methods such as indepth interviews, participant observation and close analysis of data (Hohenstein & Moussouri 2018). The current research was aimed to get information regarding the display quality and effectiveness of understanding the archaeological content from the point of view of visitors and staff.

In present study different research tools that were necessary to generate first hand information i.e. primary data. The primary data are those which are collected afresh and thus happen to be original in character (Kothari 2004). The methods of collecting primary data include observation, interview, questionnaires and schedules. To record information that was available during visits to selected museums in India, researcher devised various tools of data collection such as questionnaires, interviews, feedback forms and photo documentation of museum collections and heritage sites. The facilitators i.e. education staff or resource persons of programs were also interviewed in order to know the details which were not available in published form such as on websites or brochures. The significant aspect that came to light regarding regional or local museums from the personal experiences shared by the museum staffs and facilitators about the situations and activities highlight the unplanned nature of museum visits by school groups. However, this enabled the researcher in proposing and shaping up future directions of activities to be conducted, for visitor benefit by these museums.

2.2 Museum as a source of education: How it is done?

The normal pattern observed in educational tour of any museum begins with children gathering in groups, going around the collection displayed, observing few showcases, without following specific guidelines or instructions to follow a path in order to understand the display in better perspective. The museum visits become more meaningful when the whole exercise is planned and executed well around the collection. Conduction of an activity that focuses on archaeological objects in museum is rare in local, regional and state level museums, although some museums at the Central level do offer downloadable worksheets or publications for children to follow up at home or in their next visit. The museums act as the informal learning center to supplement the formal learning in the school. The kind and the extent of learning experiences within the museum space are based on the kind of activities the visitor gets involved in. A well planned immersive and integrative experience enhances the learning abilities and cognitive understanding of concepts. This leads to sensitization towards invaluable heritage that aid in its protection, preservation and propagation.

In view to utilize effect of these experiences, and to generate the data, research tools like

- (1) Observation (2) Interviews (3) Questionnaires
- and (4) Worksheets (for children) and feedback forms (for visitors) were used.

2.3. RESOURCES EVALUATION

The museums that were visited during the course of study were evaluated by looking at the onsite sources like infrastructure (facilities), human resource (staffing structure), finance (funding aspects) and the existence of specialized departments devoted to education, curatorial or caretaking (who look after the collection in absence of the main administrative staff).

The below listed museums, were selected for study and to collect first hand conduction of educational activities by the researcher. The collection is first hand source that caters as first hand information. Different museums in India had different administrative setups and resources. The museums are categorized into three groups on the basis of methods of approach and the type of data as primary and secondary, which was targeted to collect.

Group 1 includes the museums where Empirical Case studies were conducted. Different research tools were devised to practically examine and execute the activities planned as per the collection and type of audience available in that museum/ organisation.

Group 2 consists of museums where researcher had personal interaction with staff but not part of empirical case study. At some museums questionnaires were filled by available staff. These museums were extensively observed in terms of activities, sources and events that were available for all segments of visitors including school groups.

Group 3 type of museums visited by scholar and on observation basis, data was collected by researcher. Photo documentation of archaeological collections was done in these museums. Available printed brochures or related information was also collected. Museums not described (discussed in chapter 4) yet explored were Salarjung Museum, Telangana; Chandigarh government museum; Government museum, Ahar, Udaipur; Goa state museum, Panaji; Orissa state museum, Bhubaneswar; Deccan College - museum, Pune.

The secondary sources were in printed, audio-visual or digital form. Apart from these secondary sources, museum often had docents that acted as facilitators/resource persons that were involved with the visitor engagement with the collection. They were either in-charge of site or care takers who were acquainted with visitor and information management. They too provided valuable

information on the activities of planning and execution of programs in the museum.

Group 1

Sr.	Name of	Infrastructure/	Finance/	Human	Publicity
No	Museum	Facilities/	Funding	Resource	Materials
•		Services	g		
1.	Allahabad	Library, visitor	Events for	Specific staff	Museum
	Museum,	amenities,	children like,	allocated for	brochures
	Allahabad/	auditorium,	painting	duties as	and
	Prayagraj	cloak room,	competitions,	resource	books.
	(Uttar	modelling	summer	person, as	
	Pradesh)	section,	programs,	educator, and	
		publication,	quiz and art	for	
		replica sale and	appreciation	photography.	
		ticket counter	courses for	Library and	
		are part of the	university	other	
		facilities	students,	services,	
		available at the	which are	pertaining to	
		museum.	funded by the	visitor	
		Parking is not	museum	reception and	
		available as	authorities, or	security etc.,	
		museum is	nominal	people have	
		situated in a	charges. In	been	
		park/garden	2018-19	appointed.	
		premises.	museum has		
			refurbished		
			galleries, for		
			enhanced		
			visitor		
			experience.		

2.	National	Library, visitor	The centre	There are	Museum
	Science	amenities -	organises	specific staff	brochure
	Centre,	cafeteria;	various	with	and
	New Delhi	auditorium,	events for	allocated	newsletter
		audio- visual	children like	duties as	
		room, cloak	science fair,	resource	
		room, modelling	drama	person,	
		section,	competition,	educators or	
		publication &	summer	docents for	
		ticket counter.	programs and	gallery tours	
		Museo-bus	quiz and	and talks,	
		(mobile	orientation	gallery	
		exhibition van)	courses for	attendants to	
		as part of	university	monitor	
		outreach	students.	proper	
		services.	Nominal	functioning	
			charges for	of the	
			participation.	interactive	
				aids/ media	
				deployed at	
				various	
				exhibition	
				galleries.	
				People for	
				library and	
				other	
				services.	
3.	National	Library, visitor	The museum	Specific staff	Museum
	Museum,	amenities,	conducts	allocated	brochure
	New Delhi	auditorium,	various	duties as	and map,
		cloak room,	events for	resource	online

		modelling and	children like	persons,	resources
		photography	'Playtime at	educator or	for
		section,	National	photography.	download,
		publication,	museum',	People for	books and
		replica sale, and	other summer	library and	workbook
		ticket counter.	and winter	other	S.
		Activity room	programs.	services. The	
		for children and	Internship	administrativ	
		tactile gallery	programs for	e, academic	
		for differently	university	and	
		abled visitors.	students,	exhibition	
			painting	based	
			competitions	functions, are	
			and other	performed by	
			gallery based	specific	
			events, art	departments.	
			appreciation	Activities	
			courses for	outsourced.	
			school and	Active	
			university	volunteer	
			students -	program for	
			nominal	school groups	
			charges.	and other	
				segments	
				audiences.	
4.	Punjab	Visitor	Events for	Volunteers	The
	State Wars	amenities, 7 D	children and	for guided	Amritsar
	Heroes	theatre, cloak	adults. Free	tours. Visitor	site tour
	Memorial	room, and ticket	guided tours,	services and	bus has a
	and	counter. Parking	talks and	security staff.	stop at
	Museum,	facility.	gallery		museum

	Amritsar	Interactive	events,		to
	(Punjab)	media touch	special		encourage
		screens, multi	programs		visitors to
		touch tables, and	mostly free		spend
		indoor theatre.	of cost for		time in
			children.		museum.
5.	Museum at	Open for	University	Staff and	Museum
	the	viewing on		research	brochure
	Department	request.		scholars, are	
	of	Multimedia		delegated for	
	Archaeolog	(projector). Prior		guided tours	
	y and	permission		and	
	Ancient	needed.		workshops.	
	History,				
1	The				
	Maharaja				
	Sayajirao				
	University				
	of Baroda,				
	Vadodara				
	(Gujarat)				
6.	Archaeolog	Library cabinets,	Absence of	Gallery	Museum
	ical	visitor	regular	attendants	brochure
	Museum	amenities, cloak	events. Under	and security	with map,
	Lothal,	room,	Archaeologic	personnel (on	guidebook
	Ahmedabad	publication &	al Survey of	site).	
	(Gujarat)	ticket counter.	India.		
		Regular audio-			
		visual show.			
		Brochures and			
		publications.			

		Parking space.			
7.	Archaeolog	Remote	Absence of	Gallery	Museum
	ical	location. Visitor	regular	attendants	brochure
	Museum	amenities.	events. Under	and security	
	Dholavira,	Gathering or	Archaeologic	personnel (on	
	Kachchh	meeting room.	al Survey of	site).	
	(Gujarat)	Parking area.	India.		

Group 2

Sr. No	Name of Museum	Infrastructure/ Facilities/ Services	Finance/ Funding	Human Resource	Publicity Materials
1.	Fort St.	Visitor	Events for	Specific	Museum
	George	amenities, cloak	children,	staff as	brochure
	Museum,	room, audio	tactile corners	resource	
	Chennai	visual corner,	for children,	persons, as	
	(Tamil Nadu)	publication &	teacher	gallery	
		replica sale	training	attendants,	
		counter and	programs,	for sales	
		ticket counter.	courses for	counter and	
		No parking	university	other	
		facility.	students -	services.	
			minimal/		
			nominal		
			charges. Under		
			Archaeological		
			Survey of		
			India.		
2.	Shri	Library, visitor	Events for	Limited	Museum
	Girdharbhai	amenities,	children,	staff.	brochure
	Sangrahalaya	auditorium/	competitions,	Keeper to	and

	, Amreli	open hall,	summer	administer	guidebook
	(Gujarat)	publication	programs, and	all affairs.	
		counter. Open	Art and music	Attendants,	
		Science park for	appreciation	resource	
		children.	courses,	persons,	
		Parking	nominal	educator are	
		available.	charges.	on	
				outsource.	
				Library	
				services.	
				Technical	
				positions.	
3.	Watson	Library, visitor	Regular	Specific	Museum
	Museum,	amenities,	activities for	staff for	brochure
	Rajkot	laboratory for	school groups.	technical	
	(Gujarat)	conservation,	Film shows,	and gallery	
		publication &	gallery talks	supervision.	
		ticket sale	and walks,		
		counter.	competitions.		
4.	Archaeologic	Visitor	No regular	Gallery	Museum
	al Museum,	amenities, ticket	events	attendants,	brochure
	Chandragiri	counter and	conducted.	security	
	(Andhra	audio-visual	Under	personnel	
	Pradesh)	corner. Sound	Archaeological	(on site -	
		and Light show.	Survey of	open air	
		Parking is	India.	display).	
		available.			
5.	Kachchh	Visitor	Occasional	Specific	Museum
	Museum,	amenities,	programs.	staff for	brochure
	Bhuj	publication &	Demonstration	technical	
		ticket sale	by artisans.	and	

(Gujarat)	counter. Parking	Under State	maintenanc	
	is available.	government.	e. Gallery	
			attendants.	

Group 3

Sr.N	Name of	Infrastructu	Finance/	Human	Publicity
0.		re/ Facilities/			
	Museum	Services	Funding	Resource	Materials
1.	Chattrapati	Museum	Events for	Specific	Museum
	Shivaji	shop, library,	children-	staff,	brochure,
	Maharaj	visitor	competitions,	curators as	CDs,
	Vastu	amenities,	summer	resource	books,
	Sangrahalay	auditorium,	programs.	person,	collection
	a, former	cloak room,	Internship	educator or	catalogues
	Prince of	modelling	courses for	for	
	Wales	section,	university	photograph	
	Museum,	conservation	students.	y, for	
	Mumbai	lab,	Minimal/	library, and	
	(Maharashtr	publication &	nominal	other	
	a)	replica sale	charges for	services.	
		counter.	programs.		
		Trust			
		museum.			
		Museo-bus			
		(mobile			
		exhibition			
		van) for			
		outreach.			
2.	Archaeologi	Visitor	Events during	Technical	Maps are
	cal	amenities,	World	person as	available in
	Museum,	cloak room,	Heritage	administrato	English and

	Nagarjunak	publication &	week. No	r. Gallery	Telugu on
	onda	ticket sale	regular	attendants,	site itself.
	(Andhra	counter. It is	events. Under	security	
	Pradesh)	approachable	Archaeologic	personnel	
		only by sea.	al Survey of	(on site).	
		Information	India.		
		kiosk.			
		Vehicle for			
		specially			
		abled			
		visitors.			
3.	Archaeologi	Visitor	No regular	Technical	Museum
	cal	amenities,	events. Under	person as	brochure
	Museum,	publication &	Archaeologic	administrato	
	Amravati	ticket sale	al Survey of	r. Gallery	
	(Andhra	counter.	India.	attendants,	
	Pradesh)	Vehicle for		security	
		specially		personnel	
		abled		(on site).	
		visitors.			
		Parking			
		available.			
4.	Indian	Visitor	No regular	Reception	Museum
	Customs	amenities,	events. Under	staff,	brochure
	and Central	cloak room,	Customs	gallery	
	Excise	publication &	department,	attendants	
	Museum,	ticket sale	Government	and security	
	Panaji, Goa	counter. Tour	of India.	personnel.	
		tablet, which			
		is provided			
		on request		_	

		(chargeable)			
		Coded labels			
		all over the			
		exhibition.			
5.	Archaeologi	Visitor	No regular	Reception	Museum
	cal	amenities,	events. Under	staff,	brochures
	Museum,	cloak room,	Archaeologic	gallery	
	Sarnath,	publication &	al Survey of	attendants	
	Uttar	ticket sale	India.	and security	
	Pradesh	counter.		personnel.	
		Touch screen		Attendants	
		kiosks.		at Stupa site	
		Parking		to keep a	
		available.		check on	
				visitors.	
6.	State	Visitor	No regular	Reception	Museum
	Archaeologi	amenities,	events. Under	staff,	brochure
	cal	publication &	State	gallery	
	Museum,	ticket sale	Archaeologic	attendants	
	Hyderabad,	counter.	al	and security	
	Telangana	Limited	Department.	personnel.	
		parking.			
7.	The	Library,	Events for	Specific	Museum
	Government	visitor	children-	staff as	brochure
	Museum,	amenities,	painting	resource	and books
	Chennai	auditorium,	competition	person,	
	(Tamil	cloak room,	and summer	educator,	
	Nadu)	modelling	programs-	photographe	
		section,	minimal/	r. Library	
		publication &	nominal	staff and	
		ticket sale	charges.	ancillary	

		counter.	Under State	works.	
		Mobile	Government,		
		exhibition	Tamil Nadu.		
		van for			
		outreach.			
8.	Archaeologi	Library,	Events for	Specific	Museum
	cal	visitor	children-	staff -	brochure
	Museum,	amenities,	competition	resource	
	Velha Goa	audio-visual	and other	persons,	
		corner,	programs-	educator	
		children	minimal/	and gallery	
		activity area,	nominal	attendants.	
		publication &	charges. Run		
		ticket sale	by		
		counter.	Archaeologic		
		Parking	al Survey of		
		facility at a	India.		
		distance.			
9.	Indian	Library,	The museum	Specific	Museum
	Museum,	visitor	conducts	staff as	brochure
	Kolkata	amenities,	various	resource	
		auditorium/	events for	person,	
		meeting	children-	educator or	
		room, cloak	competitions,	photographe	
		room,	summer	r. Library,	
		modelling	programs,	ancillary	
		section,	quiz and art	services.	
		laboratory,	appreciation		
		publication &	courses-		
		ticket sale	minimal/		
		counter. No	nominal		

		parking	charges.		
		facility.	Under		
			Central		
			government.		
10.	Thanesar	Library,	No regular	Limited	Museum
	museum,	visitor	programs.	staff.	brochure
	Kurukshetra	amenities,	Under	Administrat	
	, Haryana	publication &	Archaeologic	or, gallery	
		ticket sale	al Survey of	attendant,	
		counter.	India.	library.	
		Parking			
		facility			
		available.			

2.4 PATTERN OF MUSEUM VISITS

The visits to museums by a school or group of children are usually a planned trip, but the course of action related to participation in an activity or observing a collection sometimes occur as unplanned affair. Brief on types of visits to museum by school children such as casual, pre-planned in relation to curriculum requirements; knowledge of teachers assisting the children; active participation of both organizations in programs offered by museums; was collected and recorded.

A trip focusing on archaeology as a subject or content is rare during school time. In Indian context, a *planned visit* in which the visiting group school intimates and takes permission to see a particular collection (such as archaeology) appears to be rare. While National level museums are telephonically or by email are requested for the same, in regional or local level museums it is not in practice. Rather children get more opportunities travelling with family, friends or out of curiosity with fellow groups. Thus *unplanned visits* in museum considered as an educational tour are common for many schools in India. It is quite common that

planning is only done if a particular collection is targeted as a part of teacher's lesson plan or some project connected to the curriculum.

A museum can increase its education activities for building skills, creating conversation, and making the museum as a space for imparting information while thinking about how it can optimize all of these touch points (King & Lord 2016). This is a widespread scenario visible in various museums of India. Museum in present context is much more popular as an art organisation spreading the knowledge of crafts, music, arts etc. Even the summer programs, short term courses or other cultural events reflect the same and the level of interest in a particular section or collection. Museums add value to lives of people and connect them with ideas that represent the human civilization. Preparing well in advance for tapping the potential of resources at museum, enhances the qualitative output of visit and meets the aim of promoting and safeguarding heritage for future. In a way it is a two way beneficial aspect if visits are looked as an opportunity for learning.

Notable museums such as Government Museum, Chennai; Shri Girdharbhai Sangrahalaya, Amreli (Saurashtra), and Kachchh museum, Bhuj, Gujarat have a noteworthy archaeological collection and display hence they could plan educational activities that may compliment the collection.

(i) FIELD VISIT/ DATA COLLECTION AT KACHCHH MUSEUM, BHUJ, GUJARAT (MARCH 2013)

After the partition of India in 1947, the significant Indus valley sites and collection went into Pakistan. However the state of Gujarat has large number of museums having Harappan collections. Thus, State of Gujarat is rich in Harappan archaeological material and the collection in Kachchh Museum is myriad and noteworthy. Kachchh museum in Bhuj has scenic location as it is situated on the banks of the Hamirsar lake and just opposite the Nazar Baugh garden.

Kachchh museum has maintained the charm of presenting culture with authenticity and applied modern display panels to present the information without any hassles. Any person interested to visit Kachchh gets all information at one point and that to in a perceptive way. Museum gives full feeling of being in Kachchh and a glimpse of how living heritage is still prevailing in the region. The museum has information panels that provide precise information, helpful for a visitor as well as students of various educational institutions. These panels complimented with artefacts on display, impart a sense of understanding in youth that culture is unique and part of their identity.

The collection of museum is mostly regional and provides a glimpse of Kachchh. The excavated material, the historic antiquities, traces of landforms, photographs of cultural events in this region and the handicrafts, constitute the display of the galleries. The museum is divided into two galleries, and some artefacts are in outdoor display as well. As one enters the ground floor gallery the display starts with stone inscriptions, Indus valley civilization panels with antiquities, coins, sculptures, photographs, dioramas of ethnic tribes of Kachchh, Gujarat.

Showcases with the display of artefacts such as pottery, shell objects, terracotta figurines, beads, bangles, and seals and information related to the Indus valley civilization and the excavated material from the sites of Gujarat are seen at the museum. The panels are bilingual and well informative (Fig. 2.4.1).

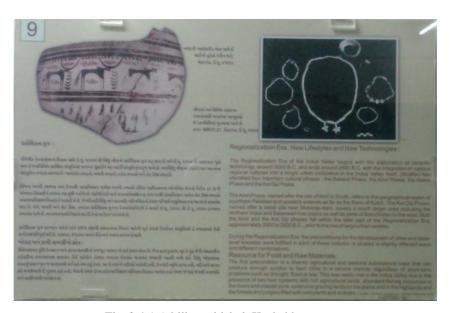


Fig. 2.4.1 A bilingual label, Kachchh museum

Researcher interacted with a group of 78 students (Fig. 2.4.2) of classes 3rd to 8th of Sotavak Prathmic Shala from Patan, Gujarat, accompanied with their class teachers and Principal Mr. Dahya Bhai Patel on their visit to museum. Prior to museum visit the students were on trips to Rani Ki Vav, Patan and Sahastralinga talav, which made them to relate the museum collections and heritage sites.



Fig.2.4.2 School students, Kachchh museum

School students were accompanied by teachers who managed the visit inside the museum galleries and provided basic information to children as and when required. By the nature of visit it was visible that it was unplanned as there was no museum staff to guide and assist these school students in describing the display and collection. The motive of teacher behind this visit was to make children aware of heritage & culture of Kachchh region, Gujarat and provide them the experience of museum visit that can enhance their understanding about people and their lifestyles. Students were very much inquisitive about the dioramas and ethnic communities represented through the display. Though the visit was unplanned, it provided them with the knowledge of the people of Gujarat and their material

culture. It is their teachers' initiative that allowed students to plunge into the pool of knowledge that a museum can provide more information related to curriculum which could supplement the textbooks. Here the 3D display enabled a better perspective and long lasting impact in their minds. The visit was fruitful as the students were joyful to see the displays and were nicely interacting with researcher about the facts they learned in this visit. It appears to be a memorable and informative experience for them which were out of the four walls of school but equally education oriented.

Proposed activities for creating Learning Environment

Kachchh museum is being visited by schools quite frequently can introduce gallery talks, object related programs like story writing or choosing an object and making a simple project associated with all the information available. Museum should take the opportunity to help schools to encourage adopting a showcase and planning some activities like photo talks, site visits or recreating the similar object in some art material like clay, paper or craft object. Also artisans may be invited from nearby villages, namely from Nirona (the craft village) to demonstrate crafts associated with this material culture. This kind of programs enhance footfall and create a sense of belongingness within the children enabling them to protect and promote their own heritage for the posterity.

The engagement of modern technology like AR/VR in the interpretation of archaeological data can be done as the museum lack concepts of interpretation of specific aspects of archaeological collection, objects, their functions and usage. Mobile cameras being simple communication tool which is available with almost all children and teachers, the visit to museum can be recorded in photos and later the children should be asked to develop heritage corner or informative panel in school which will encourage other students to visit and explore the collection in the museum. This way the sensitization towards museum collection and information can be raised.

(ii) FIELD VISIT/ DATA COLLECTION AT WATSON MUSEUM, GUJARAT (AUGUST 2013)

Mr. V.V Desai (Incharge Curator) of Watson Museum, Jubilee Bagh, Rajkot has been associated with museum since 7 years. The leaflet (Fig. 2.4.3) about the museum was obtained and the list of activities that were conducted during the year are briefly mentioned in it. Watson Museum was established in 1888, and as per the museum, leaflet "most of the museums in Gujarat are situated in Saurashtra region. These museums are founded by the rulers of princely states. Watson museum is a multidisciplinary museum has crossed a century of existence and possesses a land mark position in Saurashtra". This museum was established in the name of Colonel John Watson, who was the political agent of Kathiawar. John Watson was interested in history and archaeology of Saurashtra, and collected artefacts that fascinated him. To honour his multi-level services finally led to decision of building a memorial, museum to house the exhibits that were collected by him. Thus 1888, Watson museum was founded in the building known as Memorial Institute. In 1893, on the occasion of inauguration ceremony of the Memorial Institute, an exhibition was held which was inaugurated by the Governor of Bombay- Lord Heris and later these exhibits were kept in Watson Museum. Collections of John Watson, collection of Robert Brucefoote, gift from princely rulers are the nucleus exhibit of this museum. The museum was enriched by the receipts of treasure trove act, gifts, purchases and objects such as copper plates, coins, inscriptions - collected by the field works of ex-curators. The museum was reorganized by grant of Central Government in 1968. In the year 2001, museum building was damaged by the earth quake. The renovation of the building was carried out by the grant given by Central Government and State Government. At present there were 16 galleries in the museum, housing collection ranging from Pre-historic stone tools; Harappan sites (Fig.2.4.4); sculptures from Ghumali area; metal sculptures of 16th to 19th century Gujarat; stone inscriptions from 3rd century; coins from Indoparthian, Kshatrapas, Kushan to Delhi sultanate; anthropological collection of tribes of Gujarat; handicrafts; paintings;

manuscripts; furniture; European art; musical instruments; rocks and minerals; natural history etc. all comprise the collection on display.

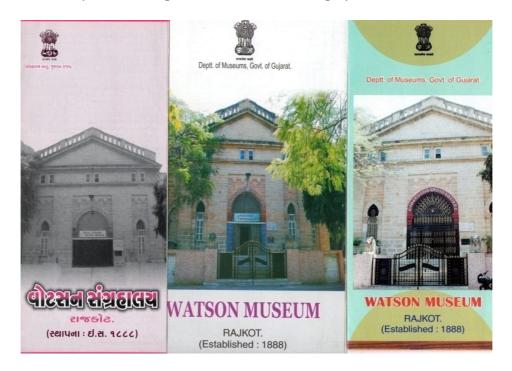


Fig. 2.4.3 Brochures, Watson museum, Rajkot



Fig. 2.4.4 Replicas of Harappan antiquities, Watson Museum

Mr. Desai described that this institution offers educational services like gallery talk, walk through, film show, and similar programs to strengthen the relationship with other educational institutions and the museum. Various handicrafts workshops, exhibitions and other promotional events are the regular activities of this museum. The museum also has a library open to scholars and students. The museum sends invitations to schools and visitors and they have brochures that attract and inform audiences of perspective events time to time. According to Mr. Desai, the Natural history section is most attractive among young audiences and the museum promotes this section. The museum also has a publication counter consists collection of books and research publications. The organisation conducts programs during Museum week and World Heritage week.

The programs were usually choice based and generally were not planned to promote specific collections. These programs were offered to sensitize young audiences towards museum culture and also to make them engage with the collection. There is a felt need for active participation of children towards museum activities and programs and thereby generating the identity of the museum.

Proposed Activities for Developing Learning Environment

The display pertaining to Pre-historic and Proto-historic collection shows stone tools and replicas of Harappan terracottas, sculptures (bronze & steatite/lime) and seals. This collection can be correlated with the curriculum of school children, a module of activities can be formulated in order to popularize archaeological collection. The display has replicas that can be used as touch tools of learning or similar set of replicas can be used for tactile programs. Quarterly activities can be planned around a single object. A sample worksheet (Fig. 2.4.5 a, b, c) is created for the museum to create interactive activities for the archaeological/ Harappan collection.

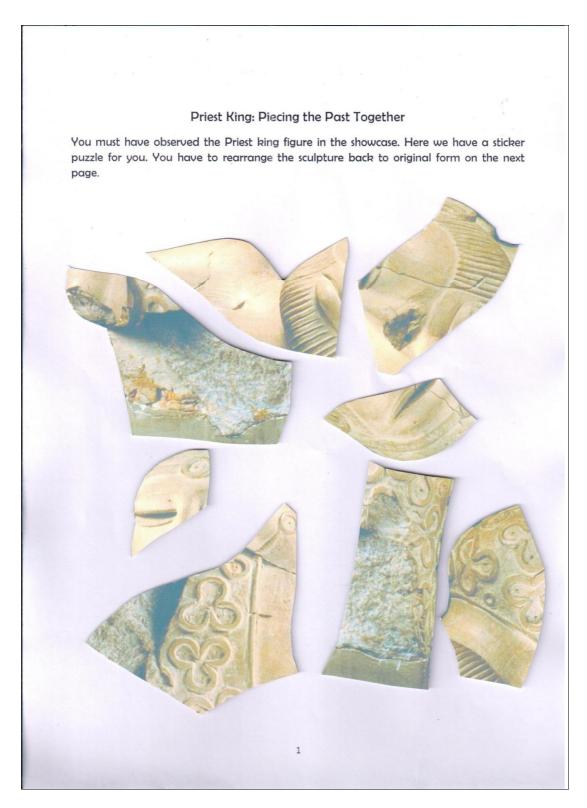


Fig. 2.4.5a Worksheet on Priest King (page 1)

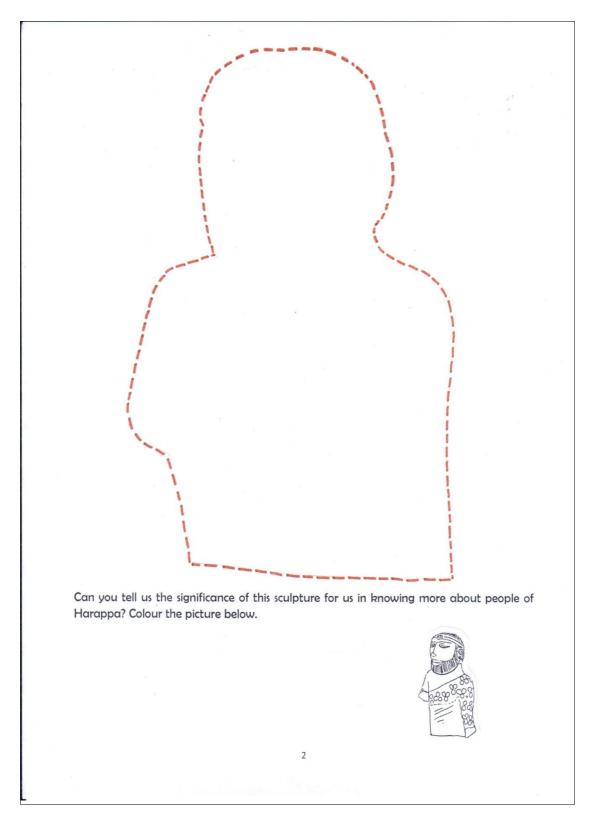


Fig. 2.4.5b Worksheet on Priest King (page 2)

Now let us brow	what you observe about th	10	
1 Now let us know	what you observe about th		
√ Hair of the figure ✓ Hair of the fig	urine		
5.			
√ Dress pattern			
5			
✓ Mood on face			
	1		
✓ Status of the fi	aurine in societu		
> Status of the fi	guille III society	-	
			×
Name:	Age:	Email:	
School:	Address:		
	Thank y	ou!	
	, , ,		
	3		

Fig. 2.4.5c Worksheet on Priest King (page 3)

Apart from worksheets, one can use the Harappan seals as a source of activity and can make children engage in the writing and trade coding practices of that time and replicating then in clay. Although a simple worksheet and follow up activity, with elaborate information, may add fervour to the display. Children may observe the artefacts on display and draw or describe a particular animal they had observed, or a sculpture they feel is fascinating to them.

It has been a popular concept among many international museums where at the entrance they offer one page worksheet and pencil, which can be used in the galleries. This type of injecting observation and a curiosity development tool enhance the understanding about the display, and generate a sense of appreciation towards archaeological content/ collection. Engaging children with gallery environment allows them to notice those pieces of information, which they miss otherwise. The whole aim is to develop a kind of virtual literacy among children so that once they get an idea of how to observe and gather information, suitable to their level of education and through this kind of continuous and consistent activities they will become future preservers and promoters of heritage.

(iii) FIELD VISIT/ DATA COLLECTION AT SHRI GIRDHARBHAI SANGRAHALAYA, AMRELI, GUJARAT (AUGUST 2013)

Researcher visited Shri Girdharbhai Sangrahalaya, Amreli, (Saurashtra) Gujarat and met Prof. Dodia (Principal of school) on site. Prof. Dodia provided information regarding the collection and services that were offered by the museum to various audiences especially to school groups. A filled questionnaire was later received by the researcher from the institution.

Amreli, a town in the state of Gujarat is of considerable historical and archaeological importance. Shri Girdharbhai Sangrahalaya and its collection, reflects the same. The museum as an idea was first conceived by Hon. Dr. Jivraj Mehta, the first chief minister of the State of Gujarat and was supported by late Padamshri Prataprai G. Mehta, Shri Gangadasji Mehta and Shri Champaklalji

Mehta. The concept of children museum initiated as a small experiment in Amreli, but later it has evolved as a full- fledged scheme (1954-55). The museum is currently housed in a building popularly known as Rangamahal built in 1835 A.D. This museum since its establishment has become a center for many cultural and educational activities. It is as such a movement which gains its relevance from modern practices of education. The museum at Amreli seeks to preserve and display the cultural heritage of the town. The Bal Bhavan started under the aegis of the Shri Girdharbhai Sangrahalaya and is affiliated to the National Bal Bhavan, New Delhi. Bal Bhavan conducts a wide range of activities for children in Music, Arts, Heritage and Astronomy. Also in the vicinity of the complex is Tara Ganga Science Park, and on similar note to enhance the scientific temper among children, travelling science exhibitions were also conducted.

The display at museum comprise of replicas of Harappan seals, TC figurines and archaeological material with map and images depicting sites; replicas of sculptures; coins and related replicas; dioramas on tribes; miniature paintings; toys and natural history specimens (diorama). The archaeological remains during excavation of ancient Gohilwad Timbo yielded beautiful terracotta figurines, red polished pottery fragments, beads, coins of the Kshtrapa and Gupta period, grinding stones of Mauryan origin, conch bangles etc. dating back from 2nd century BC - 5th century AD (Fig 2.4.6). These findings reinforced the need for a modern museum to be established and maintained so as to enable the people of Amreli to cherish their own cultural heritage, and hence the Amreli museum flourish with its multipurpose nature.

Proposed Activities for Developing Learning Environment: Role playing

As Shri Girdharbhai Sangrahalaya is active organisation disseminating arts, science and astronomical knowledge among children and youth, its display that reflects the Harappan and archaeological material, can be made more communicable. The objects are overcrowded in the display case therefore; keeping the key objects with specific information would be appreciable. Also a kiosk or a digital screen setup next to this showcase for providing more in-depth

information of the objects along with context and association with other objects to make a meaningful understanding of the culture could be attempted by the museum/curator. A small space can be setup within the gallery to allow the students to handle some of the replicas and some enlarged images of the objects and a person available to explain the objects on display so as to make the display more communicative and understandable to the visitor. Brief gallery talks and planned visits may increase footfall of students thereby museum play its role better. Connecting links and bringing out significance of collection in connection with the curriculum added by interactive sessions with the archaeologist, scholars of the region or teachers who teach this subject could be effective learning experience. Also as the organisation is active in theatre and drama, some short skits or theatrical performances (Natak) that may be themed on archaeological collection may be created and presented to children to make archaeology an enjoyable discipline. Theatre can bring alive the life of people, their techniques of creating artefacts and the stories behind creating those artefacts. In such dramatic representations, the past to present links and uses of this collection or the idea behind creation of the collection, may be promoted.



Fig. 2.4.6 Researcher recording the showcase display at Amreli.

Role playing involves children studying about some character or event and enacts that episode in a spontaneous manner as if they belong to that time period. In many historical sites such as Roman Bath (UK), and Sutton Hoo (UK) the community groups conduct role play in order to create the experience of a live representation of the historical past. If the children are well informed, they may get inspiration from the archaeological discoveries or the collection unearthed and its significance of the region. Therefore, such theme based short descriptive play or theatrical performance can be planned to spread the cultural awareness among students.

Introducing sessions on recreation of the small artefacts via hands on activities may be included in some occasional events. These are simple ways to motivate children towards archaeological knowledge which is available to them but they seldom utilize it to improvise understanding about past societies. The use of 3D projections and sound & light technology add communicative dimension to any display. Interactive digital screens can be one option which museum can think of implementing. The digital touch screen can be instrumental in making the visitor immersive and gathering information sequentially at the same time discovery basis. Conducting hands on activities/workshops on collection such as 'Seal or Replica' making, showing short films or documentaries adds to the pulling factor of exhibit, thus these workable solutions may make the exhibition interactive. Researcher conducted one such practical workshop at Jahaj Kothi Zonal Museum, Hisar, Haryana that had archaeological collection but less interactive displays.

(iv) FIELD VISIT/ DATA COLLECTION AT THE GOVERNMENT MUSEUM, CHENNAI (APRIL 2015)

The Government Museum, Chennai is one of the most popular sites in city. Though initially it was set up in an edifice on the College Road, Nungambakkam, in 1851 later in 1854, it was shifted to the present locale in Egmore. Today, it proudly stands as the second oldest museum-after the Indian Museum of Kolkata which was set up in 1814. It is a multipurpose museum with eleven sections,

covering both art and science subjects. Sections of the museum include Archaeology, Anthropology, Art section, Numismatics, Botany, Zoology, Geology, Chemical conservation, Design and Display, Education and Children's museum. The museum grounds comprise of six buildings and a total of forty-six galleries for visitors explore immerse with and heritage. The Government museum is well known for its Bronze collections, Pre-historic ad Proto-historic antiquities (Fig. 2.4.7), Adichannalur Megalithic collections, Amravati sculptures, Indian coinage collection, Ravi Varma paintings and Natural history collections. The Bruce Foote Collection of prehistoric stone tools and many other artefacts from Arikamedu, the colossal skeleton of the whale which was discovered on seashore near Mangalore and the delicate crystal reliquaries from the Bhattiprolu Stupa are put on display. Dioramas depicting 'Man as a tool maker' act as perfect fillers, when visitors are seeing the Pre-historic stone tool gallery. These supplemented virtual images, create a better understanding of an artefact or its function and idea of creation. As present societies are not acquainted with these objects that were effective tools of ancient past. Generation of today do use an improvised version of these tools, with advent of new technologies and process, but the roots of any technology is a significant lesson of the past.



Fig. 2.4.7 Artefacts and replicas of Indus civilization, The Government Museum, Chennai

The Children's Museum is a very special segment dedicated to children in the Government museum, Chennai complex, with three main sub-divisions namely, Civilization gallery, Kids corner and the Transportation gallery. The Civilization gallery is one of its kind as the display of dioramas depicting lifestyles of people of various civilizations of the world. This is a fascinating way to create a sense of visual understanding about the civilizations of the world and make children/young visitors think about the similarities and differences between them.



Fig. 2.4.8 Indus Valley Civilization display



Fig. 2.4.9 Stone tool maker display

Display at Children Museum section (Fig. 2.4.8, 2.4.9) covers civilizations of the World. Pre-historic gallery display enable children to see various simple and

composite archaeological stone tools. The objects complimented with images make the understanding of archaeological concepts lucid and simpler.

Chennai Museum also has a Museo-bus that displays glimpses of various time periods and collections housed in museum. It covers all themes related to Prehistoric collection, including description on Rock art sites in India. In creative photographic format, accompanied with replicas of objects, the bus is a mobile exhibition that spreads archaeological knowledge even in remote areas of the State. It remains on tour on monthly basis and covers different regions disseminating the significance of museum as an educational source of learning. Luckily during the field visit the Museo-Bus (Fig. 2.4.10; 11; 12; 13) was stationed at museum and the researcher was able to photograph the exhibits on request.





Fig.2.4.10 & Fig.2.4.11 Exterior view of Museo-Bus





Fig. 2.4.12 & Fig.2.4.13 Inside view of Museo- Bus

This museo-bus experience enhance the element of observation whereby replicas are being displayed and complimented with pictorial depictions, makes visitors connect with the societies of past and derive inferences about how they have

evolved as a society in terms of town planning, food habits, clothing and technological advancements including science, writing, art and cultural knowledge. Authenticity of knowing an object out of the 2D book/ textual experience, seeing the actual shape, colour or form, has its own advantages to inculcate cognitive memory. People make connections with the knowledge they had imbibed over the years, as sometimes seeing the real object or an archaeological site. The museum brings these concepts live with innovative and creative display techniques. Studies suggest that seeing real objects are among the satisfying museum experiences reported by visitors (Hohenstein and Moussouri, 2018).

Chennai Museum conducts activities in History Club which is part of various schools in the city. They have e-publications, museum special programs developed to cater to school groups related to their curriculum. They have story telling sessions on themes such as Palaeolithic tools and even show objects to visiting groups from its Reserve collection. They offer objects on loan to schools on request of their headmistress/principal. On site, theatrical performances, audiovisual tours, publications and souvenir counter, aids in creating experiences a memorable affair. Every visitor has some or the other aspect to learn and spread.

Proposed Activities for Learning

Chennai museum offers many educational opportunities to children. The museum had been active in holding lectures, or events like Children film festival, and other regional festivity related programs. They can further develop sources that cater to the children, who wish to explore the nuances of archaeology and ancient civilizations. Museum can conduct exhibitions that are planned and curated by children based on sources they explored. For instance, the Rock Art gallery and Civilization galleries can act as useful sources to learn the motifs of ancient rock art or learn about the architectural elements of construction patterns of various World Civilizations, as displayed in form of Dioramas. Museum could encourage young visitors to approach their schools to set-up learning corners in their schools as well. Different collections related to archaeological themes can be taken into

consideration for the same. The sense of belongingness and clarity of concepts gets developed by all such activities. Engagement of University students to conduct Heritage gallery walks (interactive walks) on various thematic displays can aid in multiplying the footfall. Touch screen kiosks may benefit overall experience to the museum as well.

(v) FIELD VISIT/ DATA COLLECTION AT INDIAN CUSTOMS AND CENTRAL EXCISE MUSEUM, PANAJI, GOA (MARCH 2017)

A notable collection to mention is the display at Indian Customs and Central Excise Museum, Panaji, Goa. The museum one of its kind in country uses digital screens and dioramas apart from the objects to create a sense of understanding among visitors. Presently museum is housed in a place called the "Blue Building" and it was inaugurated on 25th July, 2009. The display that connects archaeology is Customs Heritage Gallery. This gallery provides information on Arthashastra of Kautilya, the ancient trade, ports, taxation system, seals, semi-precious stones and gold beads indicating trade with West and Central Asia and Gulf countries. The visitors are provided with a tour Tablet which can scan the coded labels in front of the displays and hear the description of the displayed idea or object. Also written text label information is visible for those who wish to read on Tab/ digital format. The interesting display is the diorama of Lothal- the Harappan Port Town (Fig. 2.4.14; 15) which connects the practices of trade to ancient times. Further numismatic gallery and sculpture gallery are also noticeable collections that can be part of heritage learning modules.



Fig. 2.4.14 Diaroma of Lothal



Fig. 2.4.15 Stone weights and seals of Harappan civilization

Proposed Activities for Developing Learning Environment: Digital programs for Archaeology

Groups those who visit this museum can be offered digital learning aids like film shows, short documentaries about the port site, Lothal emphasising its collection and significance being the earliest dockyard in Indian sub continent. As tour tablet is a digital source already available with the museum, feeding this device with more historical and archaeological information about the port site especially for children/ school groups may add to the archaeological learning from the site. Children may be provided additional information dealing with trade policies, illicit traffic of antiquities, norms or rules of trade etc. in a very simpler way so that they could connect the resent with the past. The significance of an object as national property and heritage of the country can be showcased within the display through effective panel information with illustrations, leaflets, interactive kiosks devices which will enable the visitor to connect the concepts of customs, trade, economy and early trade connections effectively and make meaning of the museum display and the custom's museum identity. Short documentary can be added in the visual aid (Tour Tablet) that may signify the archaeological heritage. This museum shows that archaeology has so many facets apart from cultural or heritage knowledge. Things can be extracted and learnt from past societies that have crafted these sources for generations to come and experience. Thus, learning in a museum setup is like providing a forum for dialogue and discovery. Museums function as crucibles for creativity, bringing together visitors and subject matter experts with varying points of view to stimulate dialogue and new ways of seeing (King & Lord 2016).

2.5 SURVEYS & QUESTIONNAIRES

Survey of collection on site and interviews of school children, their teachers and museum staff (educators) were done by the researcher. These interviews were more flexible as interviews allowed a somewhat natural conversation to occur in the research setting similar to the opinion of Hohenstein & Moussouri (2018) having flexibility in the conduction of interviews. Questionnaires vary in nature of data collection as they are easy to distribute, less costly, and possible to collect data in relatively short period of time. The respondents are not under any pressure that they are being watched while expressing thoughts on paper. Through written feedback in the form of questionnaire, rich insights became available in the form of information already gathered during the research.

During the field visits, the questionnaires were filled by the staff at different levels of professional hierarchy in the museum so as to generate data on the type of activities conducted and the facilities that are being provided to school children. The questionnaire enabled in knowing visitor's pattern and profiles, also the reflections on educational benefits and outreach activities of the museum through visitor's perspective were looked in these selected museums. Questionnaires used in Gujarat were answered in local language, Gujarati by the respondents and in Allahabad it was in Hindi as well. Thus the English translation is finally used for the description of the data collected.

The Visitor Feedback Form (Fig.2.5.1) is developed for the facilitators visiting with children/school groups at Allahabad Museum, Allahabad. These questionnaires were filled in hindi format as it was suggested by museum staff that the feedback form may be collected in hindi. (Fig.2.5.2) represent one of the completed/ filled feedback form and (Fig.2.5.3) is the example of the

Questionnaire of one of the facilitators. These resource persons were working in the museum for conducting the education programs and services.

	Allahabad Museum						
	Museum Visit Feedback Form						
Date of	of visit: Name of person/school:						
Age/C	Contact No. & Email ID:						
1.	How did you get to know about Museum activities & services? (Select the options)						
	(a) Newspaper (b) Friend/Relative (c) School (d) Any other source——Please mention.						
2.	Is this your first visit to the Allahabad Museum? Yes or No. If no, then mention when you have visited earlier.						
3.	Which galleries of the museum have you seen till now? Please write their names.						
4.	Which gallery display you like the most and why?						
5.	Also mention the object that was most interesting for you in the museum during your visit and why you liked it?						
6.	How did you hear about the educational workshops that the museum provides?						
7.	Have you actively participated in any of the museum workshops/programs earlier? If yes, mention details (like which & when).						
8.	Do you have any comments/feedback on your visit to the museum as a whole? (such as on Customer service, location, museum displays, souvenirs, education facilities, other facilities etc.)						
	Thank you for your valuable suggestions! Please visit again!						

Fig. 2.5.1 Visitor Feedback form developed by researcher

इलाहाबाद संग्रहालय
संग्रहालय फीडबैक फॉर्म
यात्रा की तिथि : व्यक्ति / स्कूल का नाम <u>अध्यक्ति । त्राधात्री</u> उम्र / कक्षा : <u>35 वर्</u> ष संपर्क नम्बर और ईमेल : <u>08765 736869</u>
उम्र / कक्षा : 35 वर्ष संपर्क नम्बर और ईमेल : 08765 736869 anskul tripathi 2 @ gmail Com
 आप संग्रहालय की गतिविधियों एवं सेवाओं के बारे में कैसे जानकारी प्राप्त करते
हैं? (विकल्प चर्ने) व चर्ने हुए विकल्प का उल्लेख करें।
(अ) अखबार (ब) मित्र / रिश्तेदार (सी) स्कूल (डी) कोई अन्य स्त्रोत
(i) अरवबार (ii) कार्यकर्म में श्रामिता हेक्ट
(11) कार्यकर्म में अनेकला हेर्बर
(iii) estanoit tigal the
2. क्या यह इलाहाबाद संग्रहालय में आपकी पहली यात्रा है? हाँ या नहीं। यदि नहीं,
तो आप पहले अब आएं हैं कृपया उसका उल्लेख करें।
Gasta 12 and A 331 E
10311 12 00 1 D
 संग्रहालय की कितनी वीथिकाओं से अब तक आप परिचित हुए हैं? उनके नाम
लिखिए।
(i) Ligot Lissanes Li was Land &
(1) 21901 213121212
(ii) मंद्रायात्म के लॉन / मेरान दं बाहर रखी मुनियों के स्त्री दं से सेवंद्र महत्त्व संवंद है.
Lat of new to the transfer track to
 कौन—सी वीथिका आपको सबसे अच्छी लगी और क्यों?
पायाः अभी
314A 34/24A- 2964 29 31/2012- 4964
की कारण
 संग्रहालय के संकलन में कौन—सी वस्तु आपको सबसे दिलचस्प लगी और
क्यों? उललेख करें।
1712 421 21012 5 34/ Egg Jong
र्वपूर्व र्याउ। हाला के उपित्वत प्रकेष
97 3197 51021 M 29 20142/12
- Linds a arrow Parriety 2
6. आपको संग्रहालय की बीक्षिक कार्यशालाओं की जानकारी कैसे प्राप्त होती है?
421 34riag - (1)
G21 344121 - [1]

Fig. 2.5.2 Completed Feedback Form, Allahabad Museum (Continued)

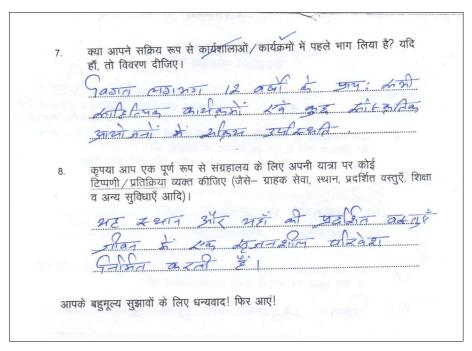


Fig. 2.5.2 Completed Feedback Form, Allahabad Museum

The primary aim of feedback forms was to gather information wherever digital or any publication related to education related activities was not available for the researcher. In these situations, researcher used staff as a source of information to derive data that was used to propose and analyse activities for selected museums. The museums which were equipped with updates through published and digital platforms were not given forms as the information was gathered through those sources for proposing activities. The feedback forms collected aided in analysing various aspects of museum that remains in minds of visitors. Resource persons are the point of contact between visitor and museum (administration) thus they can be the appropriate markers of denoting what administration should improvise or continue to keep visitors satisfied and contemplated. Familiarisation of resource person with visitors and functioning of museum, its limitations, strengths etc. can be used by administration to get to know its current and perspective audiences and their expectations. This way the museum may better shape the opinions in society about its collection, significance and uniqueness of existence for the public. In this process the Qualitative set of questionnaires provided deeper insight for object display analysis and variety of programs on offer by the museum.

Respected Sir/Madam,
Please fill in the following details about yourself and answer the questionnaire. This data will be used only for research purpose. (Please do not leave any place for answer as blank).
1. Personal details
Name - Mrs Kaven VI
Designation - Art Teacher / Free lance Astist -
Contact Number - 9415515013 - Email ID - Vija Kaveri @ gmayl. Com
Name of organisation - St. Masy's Convent Inter College,
Thompill Road, Allahabad, o1.
2. About The Museum Program
i) How many years you have been part of these museum programs? — C Years——
ii) How many days (with dates) this year the program (in which you are resource person) is being conducted? What are its main highlights?
(1) National Painting Camp based on Jamini Roy's work
of Ast from 25th to 29th April I Painting Exhibition
from 5th May to 4th June 13.
(2) Summer Work shop of Art From - 22 May to 29 May 13
iii) What is the mode of teaching in program and material used? Which part of collection/gallery will be used as an aid to the program/workshop?
I teach with the help of Black board & Chalk Painting & Sculpture & from my memory . Some times gallery will be used and Some times workshape and
I from my memory . Sometimes galley will
be Used and Some times Workshape and
of Course Some time nature (Garden)
1

Fig.2.5.3 Completed questionnaire by resource person, Allahabad Museum

2.6 REVIEW OF MUSEUM PUBLICATIONS AND OTHER PRINTED AND DIGITAL MATERIAL RECORDS

Annual reports of museums act as significant source of secondary data and similar to other museum publications or literature provided to children by the museums. Publications online and literature available (Fig.2.6.1, 2.6.2, 2.6.3a, 2.6.3b, 2.6.3c, 2.6.4) for education through museums to school children was carefully surveyed and studied. This enabled formulating the activities and worksheets with appropriate content as per the age group of children who participated in different activities during Case studies.

Archaeology is being studied in text books during the classes 6th to 12th but a practical or participatory approach is missing in schools. Apart from the curriculum books, it was observed that children developed understanding through occasional visits to an archaeological site, monument or museum. This was the case observed at the schools in Vadodara, Gujarat. The worksheets were planned by researcher to offer children a sense of archaeological learning and was developed using curriculum of various classes as the base. NCERT being a premier institution to offer books all over India, it was first source to refer. The curriculum of social studies and history that was offered to children from 6th till 12th class was thoroughly explored. The Department Museum at the Department of Archaeology and Ancient History, The Maharaja Sayajirao University of Baroda was the first case study used for developing activity sheets, and state board text book selected for the same. State board of Gujarat was also considered to develop pre-visit and post- visit worksheets for children as a pilot study to develop worksheets.

From all the primary experiences, sample questionnaires were developed for local and regional museums in Gujarat. The staff that had been working with groups of children whether they are education officers, coordinators, resource persons or curators all had a different point of view towards developing, planning and

offering programs to children. The main purpose of creating worksheets for children and feedback/questionnaires for staff/ facilitators was to gather data that can be a record of the thoughts and ideas that facilitator seldom share.

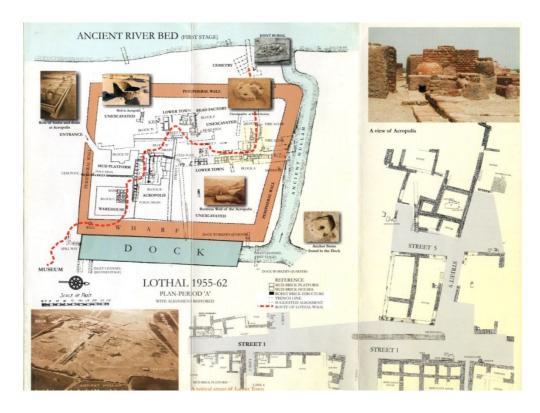


Fig.2.6.1 Information Brochure, Lothal, Gujarat (Courtesy: ASI)

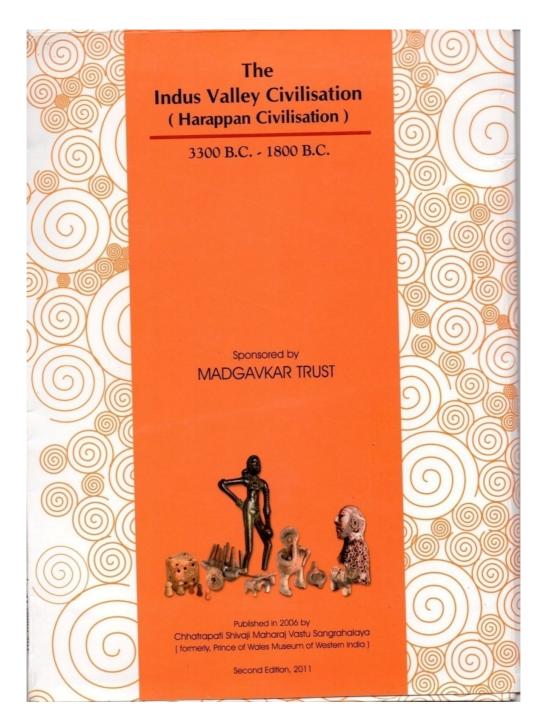


Fig.2.6.2 Resource pack on Indus Valley Civilization, CSMVS, Mumbai.

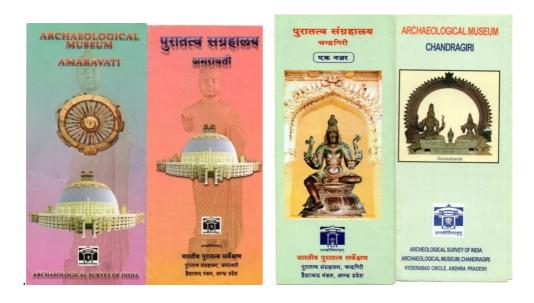


Fig. 2.6.3a Fig. 2.6.3b



Fig. 2.6.3c

Fig. 2.6.3 a, b, c. Information Brochure of ASI museums

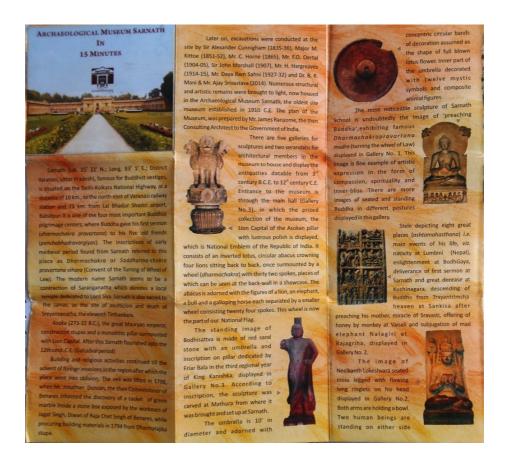


Fig.2.6.4 Printed Leaflet- Information Brochure of Sarnath, Uttar Pradesh

Through the observation of diverse collection of museums both, at government & private administrative setups, the literature surveys and personal observations, all the aforesaid resources the data was generated for research. A preliminary survey of museums in India, through websites of museums, and data from published literature, enabled the researcher to create a path of action to get in touch with associated personnel. After a formal intimation through email, or telephonic conversation, the museums were visited. Observing the types of collection associated with archaeology such as pre- history and proto- history cultural materials, sculptures, coins, inscriptions etc. available organisations/museums within India, led to the generation of collective data. Researcher also studied various sources available to children at school level to understand the various dimensions of archaeology. The textbook of social science

from class 6^{th} to 12^{th} of all boards such as state board (Gujarat), CBSE was carefully surveyed.

PART II

2.7 SURVEY OF NON GOVERNMENTAL ORGANISATIONS

Apart from national, state and local level museums, there are many individual organizations that conduct open endeavour for popularizing archaeological heritage through the medium of museum collections catering to various age groups. The second part of this chapter discusses about few of the popular organisations namely, The Sharma Center for Heritage Education (Chennai), Heritage Lab (Chandigarh), Rereeti (Bangalore), Nizamuddin Urban Renewal Initiative (New Delhi), Heritage Trust (Vadodara), and ITIHAAS (New Delhi). Organizations such as INTACH and Sahapedia (Delhi based) conduct heritage walks at various heritage sites and also in museums within Delhi and outside. These organizations also conduct workshops inside the premises of National Museum, New Delhi. INTACH is active in almost many cities and in regions of India and published significant books on heritage education (including archaeology). Sahapedia is an open resource which acts as an online (digital) database of tangible and intangible heritage including archaeologically significant sites and collections.

As per National Curriculum Framework (2005) 'Learning takes place both within school and outside school'. The document recommends partnerships between the school system and other civil society groups, including non-governmental organisations and teacher organisations.

These partnerships may aid in enhancing the impact on curriculum supplement to archaeology as a field of understanding human past. Some of the active organisations are discussed in the following pages.

a) The Sharma Center for Heritage Education (Chennai)

The organisation is active in offering excavation and exploration activities for children. Apart from onsite techniques such as surveying, trench making, mock digging, activities and understanding about stone tools and flint knapping techniques are taught to children and university students, by the foundation. They have publications such as "Shining Stones" (Fig.2.7.1) that is themed around the stone tools and how they were discovered. They emphasise on archaeological methods and collection in major activities conducted by the Center.

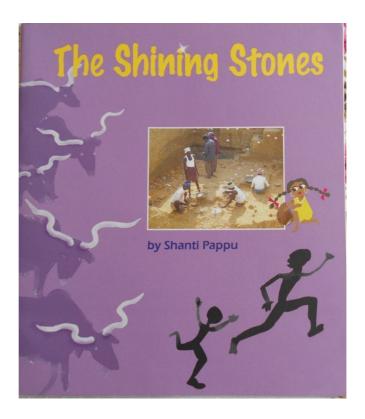


Fig. 2.7.1 Resource for learning Stone tools (Courtesy: The Sharma Center for Heritage Education)

b) Heritage Lab (Chandigarh)

Based in Chandigarh, the Heritage lab offers digital promotion and awareness of heritage collection in museums and on sites. They cover all themes of collection whether it's archaeological, music, paintings, theatre etc. They create digital sharing platforms and encourage young participants to share and adopt monthly activities that they will share on digital portal. Heritage Lab conducts events like Photo walks, Museum visits etc. that encourage school children and teachers to get acquainted with the sites as well as invaluable heritage.

c) Heritage Trust (Vadodara)

They conduct events in collaboration with schools and encourage young minds to protect and promote heritage structures in the city of Vadodara. Heritage trust also publishes books for children in Gujarati language that reflects glorious heritage past of Vadodara as a city. Researcher acted as a resource person in one of the conducted events that was organised near Navlakhi Vav, in the premises of Laxmi Vilas Palace, Vadodara.

d) Sahapedia (New Delhi)

It is an active organisation that offers scholarships, projects, internships to young minds to participate in developing and contributing data in their digital portal that has admixture of tangible and intangible heritage of India. Sahapedia also conducts events such as museum visits, heritage walks on monuments, and cultural theme based programs that encourage participation in heritage awareness endeavours. They are associated with many schools and museums in Delhi. Now spreading more, Sahapedia is conducting events outside Delhi as well.

e) ITIHAAS (New Delhi)

ITIHAAS work in close association with museums, like National Museum, New Delhi, and offers internships to school children wherein they have to choose a theme and conduct surveys or develop activities to enhance the promotional aspect for the organisation. They also explore to find out, how the visitor footfall can be increased for a particular section or collection, or how quality of exhibition can be improved as per visitor satisfaction.

All above mentioned organisations are active on social media and work in close association with schools and museums. The way of conducting programs vary each year but the innate idea of conducting a program involves around heritage awareness. These organisations are effective catalysts that can aid museums in promoting archaeological heritage. At times archaeology comes up as the least priority theme when promoting collection. Children get more fun exploring arts, crafts, music, natural history etc. which fascinate their senses, and interest in other collections takes a back seat.

For education quality check, improvement and innovations in India, different education policies such as National Policy on Education (NPE 1986, 1992, 2019); National Curriculum Framework (NCF 2005); and World CP-Asia, India (2013) came to light. These policies promote the component of learning of vocational or cultural aspects of the country. NPE (2019) states "All fields of human endeavour, including arts, crafts, and sports, are valuable to both human and societal advancement, and so should be actively pursued by students in their curricula to achieve holistic development". In this regard the heritage that is imbibed in monuments, sculptures, museums, archaeological sites all play a significant role to make students learn about the ancient arts and crafts of India. Apart from promoting site visits to museums by Directorate of Education, a need to promote archaeological site visits may add to the overall context for those who can observe and experience the strategies and skills behind the excavation, documentation, storage and preservation of cultural heritage.

The National Curriculum Framework (2005) outlines many excellent strategies that are still relevant for accomplishing a more constructivist type of learning. It emphasises on visits to sites outside the school premises such as local monuments and museums, as it suggests that restriction of classroom activities to written texts, implies a serious impediment to the growth of children's interest and capabilities. In absence of no specific policy, there emerges a pressing need to look into this area of exploration and learning.

2.8 Summary

Students, who learn and study the ancient civilizations, can examine artefacts, create mini- exhibitions in schools, also create photo exhibitions of collection, sites and museum building. They can create connections about lifestyles of past and present. Objects tell lot of stories; students can act as detectives and extract the information hidden in this archaeological heritage. Engaging active young minds in works of museums, like planning events, reorganisation of display, conservation or documentation of collection, are discovery learning aspects that can turn them into future archaeologists and museologists of the nation.

It is essential that children and youth in the country are equipped with the knowledge, skills, attitudes and values as well as employable skills that would enable them to contribute to India's social, economic, and political transformation (NPE 2019). With a combined effort of schools, museums and the NGO organisations, having trained professionals to promote or develop thematic activities, archaeology can be boosted up as an invaluable source of education. The potential of archaeological collection is to be tapped well for generations to get maximum benefit from it and learn about the enigmatic past societies and cultures. The change in perspective of formal education institutions may bring a boost to existing situation of archaeological learning and advancements. This will add to the years our heritage is continuing as an invaluable wealth.