

**National Seminar on Water and Culture**  
**June 25-27, Hospet**

**TITLE : Water Management In the Vijaynagar Empire**

By Dr. R.S. Morwanchikar  
Retired Professor,  
Dr Babasaheb Ambedkar Marathawada University, Aurangabad MS

**ABSTRACT**

The study of water management systems in the different kingdoms of South India shows that water preservation and conservation is the responsibility of every member of society big or small, high or low. The south Indian societies were well aware of the technique of water management systems which clearly reveals through these studies. Vijaynagar is the excellent example of this. This empire was in vogue from 1335 A.D. - 1565 A.D. i.e. 225 years. In their 225 years of regime they constructed thousands of water resorts, reservoirs, wells, water tanks, canals etc. That is why there are almost 135 inscription available giving information about their contribution to this field (This number may be more) and they show how prosperous was this Kingdom. Due to lack of space it would not be possible to incorporate all the study aspects in this paper, However, following prominent aspects have been covered.

A Case of Vijaynagar City

- 1) Royal palaces baths sites of festival
- 2) Urban center / domestic habitats
- 3) Religious - Temples / Tanks
- 4) General Irrigation

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**Address : Dr. R.S. Morwanchikar**, Retired Professor, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.  
**Vice President**, The Indian Council For Water & Culture, Aurangabad 431005,

## **Introduction :**

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### **1. Anantraj Sagar :**

This inscription is found on a rock in the Sangameshwar temple in Channaraypattan. This notes the construction of a reservoir namely the Anantasetu or the Anatasagar. Bukka the son of a minister of Harihar seems to have built this. Both Harihar and Bukka are the founders of the Vijaynagar Empire. Under the guidance of Vidyaranya Swami they founded the Vijaynagar empire in 1335 A.D. The other name of Ananta is Bhaskar and this particular lake was built in 1369 A.D. near a village called Porumamila (Tal. Badwel., Dist. Kadappa). This lake is still in use and the inscription bears details of precaution to be taken while constructing a lake. The celebration of the anniversary day of this lake is also recorded in the inscription. This record is found on a rock amidst the ruins of the Bhairav temple in Porvmamila (Epi. India. 14, 1917-18)

The actual construction of the Anantraj Sagar began on Shukla Chaturdashi, Shake 1291, i.e 15th October 1369. The construction was completed in two years time. There were thousands of labourers and craftsmen working here and hundreds of bullock carts were also used for carrying material. The length of the dam was 5000 dand, width was 8 dand and the height was 7 dand. (One dand = One Mtr.) This is the one and only lake in the world history which adds to the treasury of a ruler. This lake has been very justly glorified, and the importance of water and irrigation is also signified. There is mention of Lord Brahma also who prefers to sit on the lotus, which is always found on the water bed.

This lake is near the holy site of Ahobil, a few Yojanas away from Shree Shailam. Hence it becomes a pilgrim spot instead of remaining just an ordinary lake. It has been glorified this way also. The 12 points necessary for the construction of a lake is also discussed here. The King should be generous enough scholarly Brahmin's well versed in the water sciences should be available. High quality soil, soft mud should be available, river should be carrying sweet water nearby. At least two mountains should be in the vicinity where a wall would be constructed of stones to build a reservoir. The land which will benefit from all this should be rich and fertile. The reservoir should be deep enough. There should be a stone quarry nearby, a fruit garden should also be cultivated in the land nearby. The canals dug should be of enough length. The workers should be experienced in this field etc.

In the same way some problems that can arise while constructing the dam have also been pointed out. One can conclude from all of these points that how advanced India was in the field of hydrology in the ancient times. (Sukhthankar V.S. Porumamila Tank Inscription of Bhaskar Bhaudura, Epi. Indica 14, Delhi 1982)

## **2. The Krishnadevaraya Sagar at Hampi :-**

Krishnadevaraya was one of the most worthy kings of the Vijaynagar dynasty (1509 A.D. - 1529 A.D.) He had expanded the empire to a great extent. During his prosperous reign the capital Vijaynagar was booming with new Palaces, gardens, ponds and stepped wells, etc. The Portuguese traveler Paisch and Nunish had visited the capital then and noted their comments on the happenings in the city in the Bakhara. To provide water supply to the different colonies in the capital the king had build a huge lake. Paisch was present when this construction was going on. He has

mentioned that the lake was constructed at the foothills of the mountain and water coming down from both sides of the mountain was augmented there. This water was carried / taken to the city through clay pipelines. Alongside of the lake there was made a provision to store the excess water of the river. Water was supplied from the lake and provision was made for ample irrigation facilities for the paddy fields nearby.

15 to 20 thousand laborers were engaged to build this lake and they almost looked like ants crawling all over for site. The army officers were given the responsibility to get this work done by them and hence it was completed on time. But later the lake burst twice and the king called on the Brahmins to find out why it so happened. The anger of the family deity was the reason and he should be quieted first was the answer. The sacrifice of a horse and a buffalo was advised to and control the future damages accordingly they were performed. Surprisingly it is said that there was no damage after that. The King during this period had dug a number of wells too (Fritz J.M. and Mitchell G. City of Victory Vijaynagar, New York, 1991)

There is a different story all together in the 'Bakhar' of Nunish. (Portuguese traveler) pertaining to the above episode. According to him the king decided to divert the flow of Tungabhadra river to supply water to the city. It was a big river and 5 Kosas away from the township. To divert the water courts he had placed huge builders to block the water flow. To carry the huge rocks he utilized the services of the elephants of his kingdom. There were so many boulders placed in the river that she had to change the direction of her flow as per the king's wishes. This water diversion was so lucky and fruitful that the income of the state increased by 3 lacs 50 Thousand pardaos, (Portuguese currency). Because of this water there developed many different kinds of orchards, groves, and gardens around the city. The King too selected the hilly region to build lakes.

Nunish says that there was a lack of instruments and engineers and experts in building lakes in the city. Hence he requested the Portuguese Chief in Goa to send some engineers. Jaode an expert in this field was selected for this job by the Portuguese Chief and sent to Vijaynagar. The King told him what kind of a lake he wanted to build and Jaode told that this kind of a lake should preferably be built in lime-stone only. The King was surprised to hear the word lime-stone as nobody in the

country how to use it. The Portuguese expert still insisted on building this lake and this work was completed under his supervision.

The Portuguese expert asking for lime-stone, the king being unaware of the making of lime-stone, are all made up stories by the Portuguese. It is all exaggeration and flattery about themselves, because South India has a very old and ancient tradition of lake construction. The ancestors of Krishnadevaraya had build the excellent Anantsagar which was still in use at that time. Besides every details of the material and description of their proportion has been provided in the above mentioned inscription.

The Indians were very well aware of the usage of lime-stone. How to soak the lime-stone and what other matter had to be mixed in it was not new to the Indians. They prepared the mixture in such an excellent way that when the final product was kept in front a dog, he should lick it thinking it to be a butter. This beautiful explanation appears in the Leelacharita of the Mahanubhavas (13<sup>th</sup> Century A.D.). Hence it becomes very clear that the Portuguese made up all their stories to show how intelligent they were. There were many constructions in Vijaynagar which were made out of limestone and were build by king Krishnadevaraya himself. To concentration on water conservation was a good decision taken by Krishnadevaraya as it added to the revenue of the state.

#### References :

(Sewell R. A. Forgotten Empire, London, 1900)

(Venkaiah V. Irrigation in Southern India in Ancient India, Delhi 1990)

(Randhawa M.S. A History of Agriculture in India, Delhi, 1979-80)

(Paisch Va Nunisch, Vijaynagarche Samrajya (Anu) Jahagirdar Chandrashekhar, New Dehli 1994)

## **My key note presentation would be based on following aspects**

### **I Memories of Vijaynagar -**

- Land of myths and legends.
- Picturesque scenario of Tunga Bhadra valley
- Rich Cultural Geography of the Region
- Stories of Ramayan are still lingering the minds and the people
- Places mentioned in Ramayana
- Regime of Kishkinda Kshetra
- Riksharaja - Monkey King of Hampi
- Vali and Sugreeva two sons
- Matanga Mountain
- Sage Matanga's Ashrama
- Prasravana Mountain where Rama stayed
- Rishyamukha Hills
- Malyavanta Hills
- Anjangiri
- Pampasara - Tungabhadra
- Pampa Sarovara , Hampi
- Death of Vali

### **II Foreign Notices of Vijaynagar :**

- |                                |  |                   |
|--------------------------------|--|-------------------|
| 1. Ibn - Batuta                | Morocco  | 1334 A.D.         |
| 2. Nicolo conti                | Italy  | 1420 A.D.         |
| 3. Abdur Razzak                | Persia   | 1443 A.D.         |
| 4. Nikitin Athenetious         | Russia   | 1473 A.D.         |
| 5. Laudeis-de-Varthema         | Italy  | 1503 to 1507 A.D. |
| 6. Barbosa Duaric              | Portugal   | 1500 to 1516 A.D. |
| 7. Paes Damingo                | Portugal   | 1520 A.D.         |
| 8. Nuniz Fernao                | Portugal   | 1530 - 35 A.D.    |
| 9. Cesear de Fedrisi           | Italy  | 1567 A.D.         |
| 10. Chronicles of paes & Nuniz | are the gazettes of 16 <sup>th</sup> century Vijaynagar. |                   |

No other city than Vijaynagar can boast of literary tradition to its credit.

### **III Antiquity of Vijaynagar**

Objects belonging to the period of Neolithic / chalcolithic here reported from recent excavations near Vitthal temple

### **IV Historical period**

- 1) Remains of Ashokan minor rock - edicts were recovered from Nittur, Ude-golam seals bearing Brahmi letters (2<sup>nd</sup> century A.D.) were also found.
- 2) Successive rules of the Kadambas, the Chalukyas of Badami, the Rashtrakutas, the Chalukyas of Kalyani, the Hoyasalas, the Yadavas followed. At times the chieftons of the dynasties were representing the small areas like Kurugodu, Anegondi, Kampili etc.
- 3) Muslim inroads specially of Malik Kafur devastated the south very badly burning medieval ages / gallant defence by the Nayakas such as Prataprudra of Warangal.
- 4) Early political history is still shrouded in mystery -  
Sangamas, Suluvas, Tuluvas 1336 to 1565  
Arividu 1566 to 1666
- 5) Fate of Indian decisive wars went against the endogenous rule.  
Possible reasons may be  
Concept of Hindu war.  
Civilised Vs barbaric plunderers.  
Lack of vision, over self confidence.  
Under estimation of the enemy.
- 6) Lack of Hindu bulwark against the Muhamedan powers / battle of Rakshah Tagadi - 1565. brutest war in the history of mankind.
- 7) Special mention of Krishnadevaraya the mightiest ruler of the house of Tulus.

### **V Legendry regime 1509 to 1529 Tenali Rama**

Income of the State crossed 100 crores

Titles bestowed -

Gajpati - Gojkula - Pakal

Yavanaraj Uthanachorya

Sahiti Samrangan Sutradhara

**Extent of the empire :** whole of south India including Geeji, Madurai, Penukonda, Chandragiri.

**VI Salient features of Water management of medieval period**

- 1) Royal residence
- 2) Capital Cities
- 3) Urban centers
- 4) Domestic colonies
- 5) Irrigation agriculture
- 6) Religious temple tanks

Devagiri - Daulatabad set a model before the contemporary dynasties. However no where could be found on the lines of Devagiri.

**VI Principle of people's participation for the well fore of the society.**

**VII Conclusion**