ESTD.2010

Crossian Resonance

A Multidisciplinary Research Journal

(A refereed Biannual Published in June and December)

ISSN 0976-5417

Vol. 2 No. 4 December 2011

HOLY CROSS COLLEGE (Autonomous)

Centre for Multidisciplinary Research
NAGERCOIL
TAMIL NADU, INDIA



EDITORIAL BOARD

Chief Editor : T. Gerardin Jayam

Editors : J. Elizabeth Lucy, S. Jaya Suriya

Advisors

James R. Daniel, Honorary Visiting Fellow, Manonmaniam Sundaranar University, Tirunelveli- 627012. M. Jayalakshmi, Dept. of Immunology, Madurai Kamaraj University, Madurai - 625021. M.R. Basil Rose, Secretary, Holy Cross College (Autonomous), Nagercoil - 629004. Rosalie Joseph, Principal, Holy Cross Home Science College, Tuticorin-628003.

Members

G. Anne Perpet Sophy

V. Hermana Gilt Arachi

C. Jespin Ida G. Leema Rose

C. Nirmala Louis

T.R. Nirmala Vasantha

S. Regi

S. Sahaya Selvi S. Shyla Suganthi

S. Stella Bai

AIM AND SCOPE

Crossian Resonance, the multi-disciplinary peer-reviewed refereed journal strives to reach research scholars from all directions as well as various cross-sections of society and provides platform to resonate scientific findings to foster the spirit and aspirations of the academics and to promote research culture among the erudite. The initiative has seen the realization and fruition of the long-dreamt intellectual baby-the present issue of this journal.

This issue has provided opportunity and space to the Crossian scholars, lecturers and research guides of our institution. This little yet vibrant reverberation of intellectual sharing will definitely regenerate new knowledge and ignite and unleash power to re-search within the visionary researchers- scholars, guides, experienced lecturers/professors-hailing from University and Colleges belonging to various branches of Arts and Sciences all over the world.

Crossian Resonance strives to keep up the standard from the first issue and all the papers published in this issue were assessed by competent referee editors and were recommended for publication. This journal is committed to the development and regeneration of the nation with the scope of providing an open and common platform to launch a united vision and empowerment of innovative knowledge.

May this new beginning spring up, root, spread, grow and remain evergreen like an olive tree to create renewed awareness, dimensional consciousness and enlightenment. May the efforts of the editors and the editorial board be rewarded with prosperity and continued success. Dear contributors, we look forward to your active participation and earnest support to sustain the quality of the journal.

- Chief Editor

CONTENTS

The Lockean and Leibnizean 'Dua/elism' and Cartesian Innatism: A Chomskian Perspective - E. James R. Daniel	1
The Treatment of the Themes of Cross-cultural Interactions and Divided Loyalties in Amitav Ghosh's The Glass Palace: A Subaltern Perspective - J.Elizabeth Lucy	12
Identity Crisis in Githa Hariharan's Fugitive Histories - V.Amutha	17
Cultural Identity Crisis and The Insurgent Female Psyche in Manju Kapur's The Immigrant - A Feminist Perspective - F.A. Binu Josy	22
Transgressing Traditional Roles: A Study of Toni Morrison is Sula and Anita Nair's Mistress - M.F. Anne Feril	28
Breaking the Silence: A Gynocritical Study of Bapsi Sidhwa's The Pakistani Bride - V. Sumitha	33
புண்டைத் தமிழர் இல்லங்களில் முற்றமும் பயன்பாடுகளும் - வி. ஹெர்மனா ஐில்ட் ஆராச்சி	39
A Historical Study of the Forts in Kanyakumari District - M.Anusha Angel, S. Regi	49
An Economic Study of Carpenters in Agasteeswaram Taluk - G. Anne Perpet Sophy and S. Jeni Sanjana	55
A Reflection of the Indian Women in Entrepreneurial World - J.M. Vinitha Charles	62
Effect of Pressure on the Structural Phase Transition, Metallization and Superconductivity of Silver Fluoride - N. Rama Devi, Ayarine.G.Dhas and C. Nirmala Louis	71
FTIR Studies on NaClx Br1-x mixed single crystals grown from the aqueous solutions -C.V. Somasundari and N.Neelakanda pillai	78
Comparative Study of Zinc Ferrite (ZnFe $_2$ O $_4$) and Stannous Zinc Ferrite (SnZnFe $_2$ O $_4$) Nano Particles - A. Darlin Mary	83
Synthesis and Characterization of Polyaspartimide and Polyimides - M. Anitha Malbi and G. Leema Rose	89
Photocatalytic Degradation of Chlorpyrifos in Aqueous Suspensions Using Nano crystals of ZnO - V. Gnana Glory Kanmoni and G. Allen Gnana Raj	98
Study on Interaction of Transition Metal Ions in the Formation of Transition Metal Complexes with Functionised Polymers from Cardanol - C. Isac Sobana Raj, M. Christudhas and G. Allen Gnanaraj	104
Reproductive Biology and Self-Incompatibility Mechanism in Hamelia Patens Jacq. An Ornamental Species of Rubiaceae - C. Filma Louis, M. Usha, Maria Swarna Laila Bai., M.A. Sofiamma and P.M. Radhamany	111
Occurrence and Distribution of Coliform Bacteria in Rajakamangalam Estuary in the South West Coast of India: As Pollution Indicator - C.Jespin Ida and A.Palavesam	119
Amplification of Seafood Pathogenic Gene from Aeromonas Hydrophila - Albino Wins, J., M. Murugan and C. S. Vasavi	128
Effect of Herbal Fumes on the Growth of Vigna Radiata (Linn.) R.Wilczek Seedlings - M.Revathi and G.Banumathy	133
Humoral agglutinins from two estuarine crabs, Parasesarma plicatum (Fabricius) and Sesarmops intermedium (de Haan)- S. Mary Mettilda Bai and Sr. M. R. Basil Rose	140
Physico - Chemical Parameters of Ananthanar Channel of Pazhayar River System, Kanyakumari District, Tamil Nadu - Anitha Kumari.V and F. Brisca Renuga	147
Printed and published by Crossian Publication	

A Historical Study of the Forts in Kanyakumari District M.Anusha Angel¹, Regi.S²

¹Ph.D. Research Scholar, Department of History and Tourism, Holy Cross College (Autonomous), Nagercoil 629004. ²Assistant Professor, Department of History, Holy Cross College (Autonomous), Nagercoil 629004.

Abstract

During the early days of history, man lived in caves. As civilization advanced, he preferred to live in plains. When more traits came to the plains there were competitions for supremacy. Therefore they felt the necessity of a device for protection of their culture and their civilization. It resulted in the making of strong forts. Those forts stood as a symbol of their architecture and culture. These forts not only gave protection but also served as the base for offensive and defensive operations. Hence in Thirukkural, Thiruvalluvar describes the necessity and requirements of an ideal fort in a chapter entitled 'Aran' (fortification).

'Vayil' was the main entrance to the fort. It was closed by a double door, one in which large and another small. The secret passages within the forts enabled the people those who were living inside to get out of it in times of emergency. Deep and wide ditches surrounded every fort. Sometimes, they kept crocodiles inside the moats so that the enemies could be easily attacked by these reptiles. The moat, another constituent element of fortification, was known by the name 'akali' and 'Kidangu'. The space between the moat and the wall was known as 'idai nilai varaippu'.

During the early days of history, man lived in caves. As civilization advanced, he preferred to live in plains. When more traits came to the plains there were competitions for supremacy. Therefore they felt the necessity of a device for protection of their culture and their civilization. It resulted in the making of strong forts. Those forts stood as a symbol

of their architecture and culture. These forts not only gave protection but also served as the base for offensive and defensive operations. Hence in Thirukkural, Thiruvalluvar describes the necessity and requirements of an ideal fort in a chapter entitled *Aran* (fortification).¹

Forts formed one of the six auxiliaries of royal paraphernalia.² Ancient

Thirukkural, Chapter 75.

¹ The auxiliaries were army, subjects, food, ministers, friends and forts. *Thirukkural*, 381.

Tamil Literature denotes fort in various names like Kottai, aran, inclii, aliappa and aruppam. The Sangam literature name the forts as eyil³, matil⁴ or purisai⁵ in Tamil. The open place between the two walls was called senduveli usually it was guarded by the mulappadi, a section of the standing army⁶. The place where the archers or the guards of the walls of the fort were staying was called as nayil.ⁿ Pulai⁶ Acher holes were known as pulai which used as the hiding place for the archers to hide in and discharge arrows on the attacking enemies. Bunches of arrows were kept in every nayil.⁰

Vayil was the main entrance to the fort. 10 It was closed by a double door, one in which large and another small. 11 The secret passages within the forts enabled the people living inside to get out of it in times of emergency. Deep and wide ditches surrounded every fort. Sometimes, they kept crocodiles inside the moats so that the enemies could be easily attacked by these reptiles. The moat, another constituent

element of fortification, was known by th_0 name $akali^{12}$ and $Kidangu.^{13}$ The spa_{C_0} between the moat and the wall was $know_{\eta}$ as $idai\ nilai\ varaippu$.

As forts were the very common factors of Tamil Nadu, Kanyakumari District also has many forts. In this paper the scholar aims to discuss historical background of the forts in Kanyakumari District and their architecture.

Udayagiri Fort

The Udayagiri fort is one of the ancient forts in Kanyakumari District. It has rich historical heritage. It is situated 15 kms to the north-west of Nagercoil and on the Nagercoil to Trivandrum highways of Puliyoorkurichi village, Kalkulam Takuk of Kanyakumari District. The fort is located to the east of Padmanabhapuram, the erstwhile capital of Venad rulers on a hill rock. It is known as Udayagiri. It is said that the sun rises at this hillock and hence it was known as Udayagiri (*Udaya*' means

³ Eyil also denotes a fort. Tolkappiyam Porulatikaram, 6713, Purananaru 21:6, Purananuru 3:9, 40:1.

⁴ Purananuru, 341:5.

⁵ Ahananuru, 114:9.

⁶ Ibid., 22.

⁷ Padirrupattu, 7:12, Maduraikkanchi, 66.

⁸ Silappadikaram, xv: 212.

⁹ Padirruppattu, 288.

¹⁰ Ibid., 22:22, 53:7.

¹¹ Pattinappalai, 287.

¹² Maduraikkanchi, 64; Purananuru, 14:5.

¹³ Purananuru, 350:1, 355:1.

¹⁴ Raja Thangam, A., Captain Delannoy and Travancore, Nagercoil, 2005.p.5.

Crossian Resonance December 2011

risings on and *Giri* means mountains).¹⁵ The Chera and Venad kings had the prefix *Udaya* in their names like *Udaya* Marthandavarma . Since it was a place under the Chera and Venad rulers it could be known as *Udayagiri*.¹⁶

In the early days this fort was made up of mud and clay. De Lannoy the then commander in-chief of Travancore army during Marthandavarma's regime was asked to fortify the Udayagiri hills. Because Marthandavarma thought it would serve as an additional campaign area for the garrison and a protected place for the manufacture of the arms.17 Lannoy started reconstruction of the fort in 1742 AD.18 A memorial tomb was erected in the Udayagiri Fort campus and it bears inscriptions in Tamil and Latin. An ancient chapel is also found inside the fort. There are seven tombs inside the chapel.¹⁹ All these tombs belonged to De Lannov and his family members and other officials. Udayagiri fort came into prominence during the rule of Travancore king, Bala Marthanda Varma (1729-1758 AD). Now this fort is under the control of Archeological Survey of India and Forest Department. On the top of the hill there is a Sastha temple. At present the temple is now maintained by the people living around the fort.²⁰

Mayyakottai

Mayyakottai is situated in Kalkulam village of Padmanabhapuram Municipality, Kalkulam Taluk. It is 1 km north of Padmanabhapuram and 1/2 km east of Nagercoil - Kulasekaram road, and it is on the way to Kumaracoil from Marunthukottai.21 At the hillock of 200 feet height, Mayyakottai is constructed. It is a square fort enveloping 11/2 acres of land. The length of the fort is 400 feet long. The upper portion of the fort is 3 feet height, built by cutting stones. The lower portion is built by granite stones and is 15 feet high. There are spaces for gun men too.22At the north-east and south-west corners, there are two corner bastions 25' x 25' in size. The entrance is made up of stones $6' \times 5' \times$ 1'. At the centre of the fort there are two black stones standing erect, their height being 8' and 12' respectively.23At the centre of the fort there is a pillar of 3 feet height It might have been constructed in AD

¹⁵ Velupillai, T.K., Travancore State Manuel, Vol. II, Trivandrum, 1940. p. 1.

¹⁶ A Short Note on Udayagiri Fort, Vol. I, Political Directorate by Archives, Trivandrum, 1920, p. 335.

¹⁷ Travancore Information and Listener, Department of Public Information, Vol. III, Trivandrum, 1948, p. 48.

¹⁸ Travancore Administrative Report, 1929-30, Trivandrum, 1930.

¹⁹ Dutch Records No.1, Memoir on the Malabar Coast by J.V. Stein Van Gollenesse, 1765.

²⁰ Journal of Kerala Studies, Vol. III, 1981, p. 123.

²¹ Personal interview with Ram Singh, T.K., Tourist Guide, Padmanabhapuram, aged 30, dated 11.03.2009.

²² Personal interview with Suma, R., Tourist Guide, Padmanabhapuram, aged 38, dated 12.03.2009.

²³ Personal interview with Anil Kumar, K., Tourist Guide, Padmanabhapuram, aged 51, dated 12.03.2009.

1744.²⁴ It is said that the place was utilized as burial ground for the dead soldiers and culprits who were hanged to death. When the British took the whole land in their hands, this fort lost its importance.

Marunthu Kottai

Marunthu Kottai is situated in Kalkulam Taluk, Villavoor Town Panchayat of Kalkulam revenue village. There is a mountain of 800 feet height.25 On the top of the mountain, this Marunthu Kottai fort is constructed. The walls of the fort envelop 200 acres of land and at a length of 500 feet. On the western side the wall is constructed by cutting stones and it is 300 feet high. The basement of the fort was built by De Lannoy and it is about 10 feet high.26 Inside the fort a vertical rock can be found. On the four corners of the fort there are four bastions. On the northern side of the fort wall at the centre, there is another Bastion.27 Near the northern side there is a stone Mandapam and at the south-west side there is a pitch made up of stone.

The stone mandapam has 12 pillars. It's area is $16'10'' \times 11'4''$. The upper roof is made up of brick and mortar. The

mandapam faces east. The height of the pillar is 7′6″. The entrance to this mandapam is situated at the north-western corner. This Marunthu Kottai was used for preparing explosives and hence the fort was named as Marunthu Kottai. 28. This fort might have been constructed between 1758 – 1798 during the reign of Karthiga Thirunal Ramavarma alias Dharma Raja. After 19th century the fort began to lose its importance. 29

Vattakottai

Vattakottai, a granite fort situated six kilometers north-east of Kanyakumari forms the terminal of a line of ramparts known as the South Travancore lines built by Marthanda Varma to serve as defence for Nanjilnadu. It is situated in the Agasteeswaram Taluk.30 It is rectangular in shape and covers an area of about three and a half acres. This fort is having a wall of 25 to 26 feet high, including the parapet. 29 feet thick at the rear . This fort also was built under the orders of De Lannoy during the reign of Marthanda Varma (1729-1758). About 1810 AD, the British forces under the command of St. Leger marched into Nanjilnadu through the Aramboly pass and demolished the defence lines.31

²⁴ Dhina Thanthi, Thahaval Kalangiyam, Nagercoil, 2008, p. 15.

²⁵ Ibid., 2009, p.1 17.

²⁶ Dhina Thanthi, op.cit., p. 117

²⁷ Personal Interview with Vinitha, R., Tourist Guide, Padmanabhapuram, aged 31, dated 24.04.2009.

²⁸ Dhina Thanthi, op.cit., p. 17.

²⁹ Dhina Thanthi, op.cit., p. 18.

³⁰ Gopalakrishnan, M., op.cit., p. 412.

Lord Kitchener's visit to Vattakottai, File No. 139, Directorate of Archives, Trivandrum, 1920, p. 1.

Crossian Resonance December 2011

At present this Vattakkottai Fort is a holiday resort and picnic centre.³²

There is a subway or tunnel in this fort. It is about 4 feet in width. It is supposed to connect the fort with the Padmanabhapuram palace. Now the tunnel has been closed. On the northern side of the fort a slope being the canon from the lower to the upper part of the parapet of the fort is found. There is a wall of about 6' diameter. The whole wall around the fort is repaired and fresh mortar is being applied.

There are no literary or epigraphical evidences to know much about Vattakottai. However from the evidences left in the fort itself, it could be concluded that this fort was used as the military base to protect the Kumari port which was a rich pearl harbour. Since at that time 'fish' the emblem of the Pandya kings is found in the fort, it is clear that the Pandya king had control over this fort.³³

Udachikottai

Udachikottai is situated at Kunnathoor revenue village of Vilavancode Taluk on the Marthandam-Thengapatanam road and it is about 7 kms from Marthandam. It is a small stone fortification now in ruins, covering the area of about five acres of land. It is said that Rani Udachi, the mother of the famous Thirumalai Nayak of Madurai who invaded Nanjilnadu, is said to have lived in this fort, hence it was named as Udachikottai after her.34 Tradition states that Rani Udachi had no issues for a long time and on the advice of her priests, she came to Munchirai from Madurai and worshipped Thirumalaiappan, the deity of the local temple. Therefore this fort was built at that time for her stay. It is also said that God blessed her with a child who was named Thirumala. When Thirumalai Nayak became the ruler of Madurai, he presented a gold crown and other valuables to the deity of Munchirai temple.35

Thanumalayan Fort

Thanumalayan fort is situated at a place called Pazhaya Pottayadi in Kanyakumari district. This fort is 300 years old. The Thanumalayan fort although smaller when compared to many of the gigantic forts of the land, it has a long history³⁶ This is the site where the Pandya ruler Perumal had given asylum to the wandering Marthanda Varma

His Excellency lord Pentland visit to Udayagiri and Vattakottai Fort, File No. 2245, Directorate of Archives, Trivandrum, 1920, p. 44.

³³ A short Accounts of Udayagiri and Vattakottai, File No. 2245, Directorate of Archives, Trivandrum, 28.09.11020, p. 1.

³⁴ Dhinamalar, op.cit., 2009.

³⁵ Padmanabhan, S., Kumari Maratta Kavilgal (Tamil), pp. 118-119.

^{*} Ramamurthy, M., History of South India, Madurai, 1983, p. 117.

during his hiding, when he escaped from his enemies, the Ettuvittil Pillaimar – Pappu Thampi and Raman Thampi. At present it is a neglected place of history.

Conclusion

Since forts are the protection walls, most of the forts were built on the top of a hill lock or mountain. Because from there they could easily attack the enemies who were climbing up on the rocks and to prevent them to enter into the rock. Though the enemy force seized the fort, they could stay inside safely and fought

with the enemies for a long time. Therefore in some occasions the enemies went out without capturing the fort. We can find this could happen not only in the history of India but also in various battles of world history. When the enemy force captured the fort, the people of the royal families and other important personalities could escape from the fort. Thus forts served the purpose of saving the life of people inside the fort during the time of external crisis. In times of peace it served a place to make warefare and training ground for the army.