

# Contents

1.	Structural, Optical and Luminescence Characteristics of Sol - Gel Derived Barium Strontium Titanate thin Films
	L.V. Maneeshya <sup>*1</sup> , G. Girija <sup>2</sup>
2.	Synthesis, Characterization and Antimicrobial Studies of Copper(ii) Complexes of 2,3-(diimino-4'-diantipyrinyl)butane
	B. N. Anila <sup>*1</sup> , M. K. Muraleedharan Nair <sup>2</sup>
3.	Adsorption Equilibriam of Methylene blue and Aniline blue dyes onto <i>Melastoma malabathricum</i> L based Activated Carbon
	Abi P.K.* <sup>1</sup> , K.C. Philip <sup>2</sup> , K. Madhusudhanan <sup>3</sup>
4.	Impact of Ecological Parameters on the Ichthyofauna of River Kurunthurapuzha
	S.L. Sreelatha.
5.	A Comparative Analysis of Customer Satisfaction of Products and Services in Public and Private Sector Banks - with Special Reference to SBI and Federal Bank
	Anu.L
6.	Empowerment and/or Enslavement: English and Early Malayalam Fiction
	P.K. Sreekumar*, Priya Jose K.
7.	Nature and Significance of the term "Upasana" in Indian Philosophy
8.	Mappilaramayana- a malabari folk version of Ramayana
	O.K. Shyju <sup>*1</sup> , M.M. Dhanya <sup>2</sup>
9.	क्प्रातिशाख्ये अष्टाध्याय्यां च संज्ञा-परिभाषासूत्राणाम् साम्य-वैषम्य विचारःद्य
	Remadevi.V
10.	.अभिमन्यु अनत कृत 'शब्द भंग' उपन्यास में युवा पीढ़ीः 107
	Umarani R.
11.	യാത്രാകാവൃങ്ങളിലെ സാംസ്കാരികതലം111
	Sherly Kurian



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# STRUCTURAL, OPTICAL AND LUMINESCENCE CHARACTERISTICS OF SOL - GEL DERIVED BARIUM STRONTIUM TITANATE THIN FILMS

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#### Abstract

Perovskite - type nanocrystalline barium strontium titanate (Ba<sub>0.7</sub>Sr<sub>0.3</sub>TiO<sub>3</sub>) thin films were prepared by sol-gel dip coating method. The effect of annealing temperature on the structural, optical and luminescence properties of BST thin films were studied. The films were characterized using X-ray diffraction (XRD), scanning electron microscopy (SEM), UV-vis spectroscopy and photoluminescence (PL) spectroscopy. XRD of the as-deposited film shows amorphous nature and crystalline phase transformation at annealing temperatures. The crystallite size determination using Debye Scherrer formula shows that the average crystallite size of the crystallites in the films ranges from 9 to 39 nm. The lattice parameters, stress and strain of the films were also calculated. The SEM images revealed that the films have smooth surface morphology and well-ordered larger grains were appeared on annealing above 773 K. The optical band gap of the films was found to increase (4.04 - 4.15 eV) with increase in annealing temperature in oxygen atmospheres. The defect related PL emission in the visible region (red) was observed for all the BST films, and the PL intensity increases with increase in annealing temperatures. Luminescence spectra also have been related to the results of obtained SEM and XRD analysis.

Keywords: Thin films, BST, sol-gel, optical bandgap, luminescence

# 1. Introduction

Ferroelectric thin films have found wide applications in many electronic and electro-optic devices. In particular, the Barium Strontium Titanate ( (BaSr)TiO<sub>3</sub>, BST) thin films are expected to be excellent in realizing various optical applications due to



# JOURNAL of dbct

their wide energy gap (>3 eV), large static dielectric constant, high refractive index and low absorption coefficient. The BST thin films can be used in non-linear optical devices such as planar wave guides or optical switches with minimal optical propagation losses [1, 2]. Thin films of BST have considerable interest for applications in room temperature electronic and photonic devices and also as infrared detectors.

Various deposition techniques such as sputtering, metallo-organic chemical vapour deposition (MOCVD), pulsed laser deposition (PLD), sol-gel process, etc. have been employed for the fabrication of BST thin films [3-6]. Compared to other deposition methods, sol–gel process offers many advantages, such as homogeneity, easy stoichiometry control, low-cost equipment and ability to coat large area and complex-shaped area substrates [7].

BST is an insulator at room temperature due to its large band-gap value. It is ferroelectric, with tetragonal structure at room temperature. Bulk BaTiO<sub>3</sub> (BTO) shows tetragonal to cubic phase transition (at 393 K), resulting in ferroelectric to paraelectric transition, while SrTiO<sub>3</sub> (STO) is cubic even at very low temperatures. The physical properties of BST films are strongly influenced by the composition, deposition conditions, and electronic structure [8-14]. The STO and BTO systems are very similar, because it is the same Ti-O octahedral coordination which predominantly influences the band gap structure. The fundamental absorption edge of STO (3.22 eV) close to that of BTO (3.15 eV) indicates that this edge is due to the optical transitions between 2p oxygen and 3d titanium states with Sr and Ba wave functions. Roy et al have reported a large blue shift in the optical band-gap of sol-gel derived BST thin films [15]. These blue shifts have been attributed to grain size reduction, stress and the amorphous nature of the films. BTO and STO are materials that show the photoluminescence (PL) phenomenon at room temperature explained from either the quantum confinement effect or defect effect. Kan et al. [16] reported that the oxygen deficiencies in STO crystal, acting as recombination centers, caused blue-light PL at room temperature.

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# JOURNAL of dbct

BST films are polycrystalline. Their properties mainly depend upon composition, stoichiometry, microstructure, thickness and homogeneity of the film. The crystallization of the film occurs by the nucleation and growth process. The characteristics of nucleation and growth process will define the final microstructure of the film and those films where the nucleation occurs not only at the interface but throughout the film – are typically polycrystalline in nature with random orientation. BST films are sensitive to oxygen vacancies and hence annealed in oxygen ambient to reduce the concentration of oxygen vacancies and to improve the crystallization.

In this paper, we report the preparation of BST thin films from barium acetate, strontium acetate and titanium butoxide precursors. The present study aims to investigate the structural, optical and photoluminescence properties of BST thin films prepared via sol-gel deposition technique.

## 2. Materials and Methods

Ba<sub>0.7</sub>Sr<sub>0.3</sub>TiO<sub>3</sub> films were deposited on quartz substrates by a sol-gel deposition process. In the sol-gel processing technique, precursors play a very important role in determining the quality of the deposited films. Barium acetate (Ba(CH<sub>3</sub>COO)<sub>2</sub>, Aldrich, 99 %), Strontium acetate (Sr(CH<sub>3</sub>COO)<sub>2</sub>·1/2H<sub>2</sub>O, Aldrich, 98 %) and titanium butoxide (Ti(OC<sub>4</sub>H<sub>9</sub>)4, Aldrich, 97 %) were used as starting materials. Acetic acid (CH<sub>3</sub>COOH), Acetyl acetone (C<sub>5</sub>H<sub>8</sub>O<sub>2</sub>) and Deionized water (DI H<sub>2</sub>O) were selected as solvents. The barium acetate and the strontium acetate were dissolved in acetic acid and deionized water with a ratio of 70:30 [17]. The solutions were then mixed and stirred. The titanium butoxide was mixed with acetyl acetone (chelating agent, in the ratio of 1:8) under nitrogen atmosphere and then mixed with the acetate solutions drop by drop with constant stirring in nitrogen. The concentration and viscosity of the precursor can be adjusted by adding proper amount of acetyl acetone. The transparent yellow sol was finally filtered using filter paper and stored as the precursor solution.



# JOURNAL of dbct

BST films were prepared by dipping quartz substrate in BST solution and subsequently pulling it up at a constant speed of 10 cm/min. After dipping, each layer was dried at 423 K for 20 min. The processes of coating and drying were repeated 11 times, as eleven coatings were required to get useful data for characterizations. Finally, the films were annealed in oxygen at temperatures 773–1173 K at a constant rate of 5 <sup>0</sup>C/min for 3 h and then cooled to room temperature at the same rate. Structural and optical characterizations of these annealed films were then performed.

The structural characterizations of the films were carried out using X-ray diffractometer (Model-Philips XPERT-PRO). Surface morphology of the films was examined by scanning electron microscopy (SEM) (Model-JSM 5600LV JEOL). Optical transmittance was studied using a UV–visible spectrophotometer (Model-JASCO-V550). PL spectra of the samples were recorded by using a Perkin Elmer Fluorescence Spectrometer (Model-LS55) with a 40 W Xenon Lamp. Excitation wavelength used was 514 nm.

# 3. Results and discussion

# 3.1. X-ray diffraction studies

The X-ray diffraction spectra of the as-deposited and annealed BST thin films are shown in **Fig. 1**. The as-deposited XRD pattern show a broad hump like feature around  $2\theta = 25^{\circ}$  which can be due to the amorphous nature of the substrate or the nanocrystalline nature of the films [18]. Analysis of XRD pattern suggests that, the microstructural evolution and transformation kinetics from amorphous to crystalline phase is dependent on the annealing temperature. Pure tetragonal phase with preferred orientation along (101) plane was observed in films annealed at 773 K. Also, the films are less crystalline. At 973 K polycrystalline nature was observed in BST films. In the XRD pattern of films annealed at 1173 K, an additional peak corresponding to (1 3 0) plane is also observed. But, with increase in annealing temperature from 773 to 1173 K, the intensity of all the lines increases. This observation points to the fact that films with



better crystallinity are produced as we increase the annealing temperature and also facilitates grain growth in the samples.

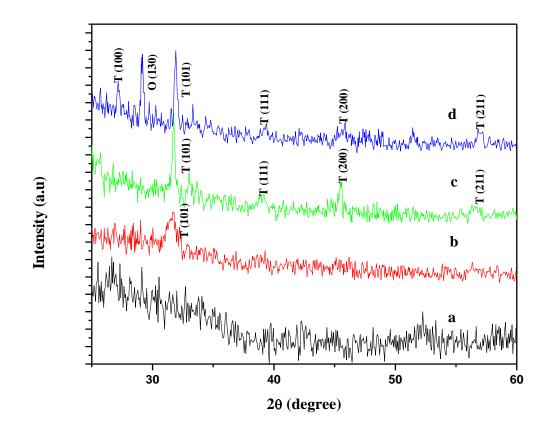


Fig.1 XRD patterns of BST thin films (a) as-deposited and annealed in oxygen at (b) 773 K, (c) 973 K, (d) 1173 K.

The average crystallite sizes of the BST film were determined from the full-width at half-maximum (FWHM) of the major peak at the angle  $2\theta$ = 31.65<sup>0</sup> in Fig. 1 using the Scherrer formula [19].

$$\boldsymbol{D} = \frac{\kappa\lambda}{\beta cos\theta} \tag{1}$$



where D is the crystallite size, K= 0.9 is a correction factor, b is the full width at half maximum (FWHM) of the most intense diffraction plane,  $\lambda$  is the wavelength of X-ray (CuK $\alpha$  radiation  $\lambda$ = 1.5405 Å<sup>o</sup>) and  $\theta$  is the Bragg angle.

The average size of the crystallites calculated for the different films is in the range of 9–39 nm (Table 1). This observation shows that the films are nanocrystalline in nature. It has been found that with an increase in the annealing temperature, the FWHM of 101 peak decreases from 0.0259 to 0.00371. Thus, the narrowing of the peak at annealing temperatures indicates that with an increase in the annealing temperature the grain size in the films increases. The lattice constants of the film were calculated from the XRD pattern of Fig.1 and were found to be decreased with increase in annealing temperature. The obtained lattice constants are larger than the value for bulk material (3.945  $A^0$ ). The difference may be due to either strain in the films or compositional change during film deposition [20].

The origin of strain ( $\epsilon$ ) is related to lattice misfit, which in turn depends on deposition conditions. The strain developed in the BST can be calculated from the relation [21]:

$$\varepsilon = (a_{\rm f} - a_{\rm o})/a_{\rm o} \tag{2}$$

where  $a_f$  is the a-axis lattice parameter of the film and  $a_0$  is the bulk a-axis lattice parameter of BST film. The positive value indicates that the crystallites are in a state of tensile strain (**Table 1**). The reduction of strain is due to the reduction of the density of dislocations and the concentration of oxygen vacancies.

In order to understand the effect of the annealing on the stress of the BST thin films, the stress in the films is calculated using the following formula:

$$\sigma = (C_{11} + C_{12} - 2C_{13}^2 / C_{33}) \epsilon$$
(3)



where,  $C_{11}$ ,  $C_{12}$ ,  $C_{13}$  and  $C_{33}$  are elastic constants for bulk material. With increase in annealing temperature, the stress decreases from 3.4667 – 0.6669 GPa. The positive value indicates that the films are in a pressure stress.

**Table 1:** Crystallite size, lattice parameter, strain and stress for BST thin films as 

 deposited and annealed at different temperatures in Oxygen atmospheres.

Annealing temperature (K)	Crystallite size (nm)	Lattice parame c (A <sup>0</sup> )	ter Strain (ε)	Stress (σ) ( GPa)
As-deposited	-	-	-	-
773	9	3.973	0.0197	3.4667
973	19	3.970	0.0091	1.6001
1173	39	3.961	0.0038	0.6669

#### 3.2. Surface morphology Studies

The microstructure of BST films as-deposited and annealed at 773 to 1173 K are shown in **Fig. 2**. The surface morphology of the films is strongly dependent on the annealing temperature. All the annealed films are nanostructured and the crystallinity of the films increases with the increase in annealing temperature. SEM image of BST thin films shows that the films are smooth, crack- free and pore- free. The as-deposited films have smooth surface morphology. The formation of smaller grains is seen in the SEM micrograph (Fig. 2b). The film annealed at 973 K displays well patterned arrangement of nanoparticles slightly larger size compared to that observed for the film annealed at 773 K. As the annealing temperature increases well-ordered larger grains have appeared (Fig. 2 (d)). Thus, SEM analysis reveals that as the annealing temperature increases the grains become more and more well-defined and the average size of the grains in the films increases. This observation is in good agreement with the XRD results. These results indicate that BST thin films annealed at higher temperatures have a well-defined microstructure [17].

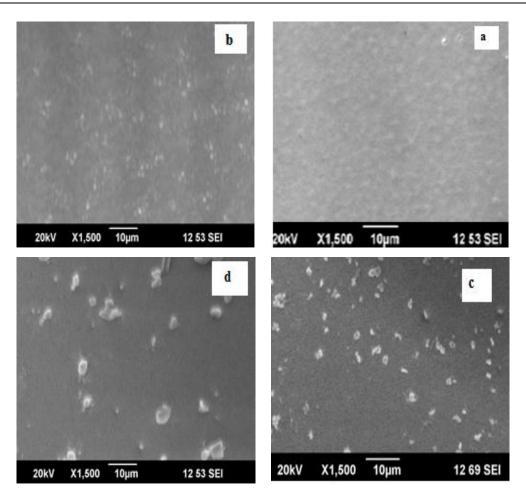


Fig. 2 SEM images of BST thin films (a) as-deposited and annealed in Oxygen at (b) 773 K, (c) 973 K, and (d) 1173 K

## **3.3. Optical studies**

The spectral transmittance of the as-deposited and annealed BST thin films on quartz substrates are shown in **Fig. 3**. The transmittance spectrum exhibits oscillatory behaviour due to an interference pattern between the wave fronts reflected from the two surfaces of the thin film. The as-deposited film shows only a relatively low value of average optical transmittance (80%) in the wavelength range of 300–900 nm. Enhanced scattering loss due to discontinuous grain growth can be the reason for the low transmittance of this film. All the annealed films are transparent in the visible region and show higher value of average optical transmittance (> 80%) compared to that of the



# JOURNAL of dbct

as-deposited film. This can be due to low surface roughness and improved crystallinity in the annealed films. The increase in visible transmittance of the film with annealing temperature up to 973 K may be attributable to the improvement in the crystallinity of the crystallites and improvement in the structural and surface homogeneity of the films. The film annealed at 1173 K exhibits decrease in optical transmittance (Fig. 3d). This may be due to decrease in the value of thickness, increase in refractive index and the phase transformation of BST films annealed at higher temperature. The transmission spectra of BST thin films reveal a blue shift for the absorption edge in annealing temperatures 773 and 973 K compared to 1173 K. Also evident from **Fig. 3**, the number of interference fringes decreases with annealing temperature. This shows a decrease in the film thickness after annealing (**Table 2**) at higher temperatures. A correlation between structure and optical behaviour showed that crystallization was accompanied by a large decrease in thickness, i.e. shrinkage of the films. This reduction in thickness of the films at higher annealing temperatures in sol-gel derived films has been reported earlier by other workers [22, 23].

**Table 2 :** The film thickness, band gap and refractive index of as-deposited and

 annealed BST thin films at different temperatures in oxygen have been determined from

 the transmittance spectra following Swanepoel's [24] envelope method.

Annealing Temperature (K)	Thickness (nm)	Refractive index	Band gap (eV)	
As-deposited	833	1.8	4.04	
773	754	1.9	4.07	
973	570	2.1	4.15	
1173	-	-	-	

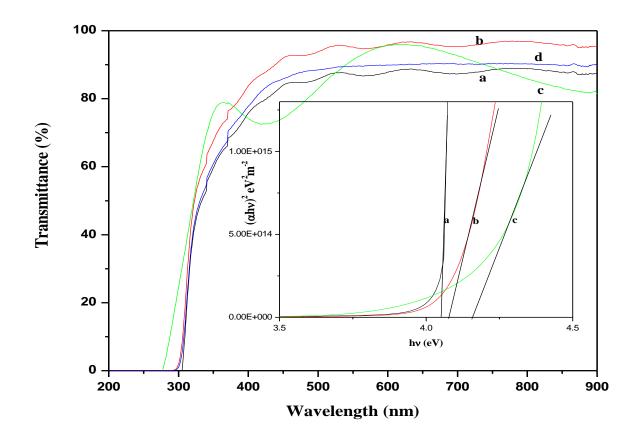


Fig.3 Uv-vis transmittance spectra of BST thin films (a) as-deposited and annealed in Oxygen at (b) 773 K, (c) 973 K, (d) 1173 K. Inset shows  $(\alpha hv)^2$  versus (hv) plot.

The optical band gap (Eg) was calculated using the Tauc relation which is given by

$$\alpha h \upsilon = A(h \upsilon - Eg)^n$$
<sup>(2)</sup>

where A is a constant,  $\alpha$  is absorption coefficient, hu is the incident photon energy and n depends on the type of transition. The band gap energy, Eg of the film was obtained by extrapolating the linear portion of the plot of  $(\alpha h \upsilon)^2$  against hu to  $(\alpha h \upsilon)^2 =$ 0. Inset (**Fig. 3**) shows the optical band gap of as-deposited and annealed BST films at different oxygen atmospheres. The band gap values are found to be 4.04, 4.07 and 4.15 eV for the as-deposited and annealed films at 773, 973 K respectively. The widening of



band gap energy with oxygen annealing can be attributed to the reduction of oxygen vacancies in BST films with increase in annealing temperature. A similar blue shift in the band-gap was reported for BST films (Eg = 4.75 eV) and BT films (Eg = 4.60 eV) [15].

A blue shift in the band-gap can occur due to several factors such as the grain size effect, stress in the films and the amorphous nature of the material [15]. In our case, however, significant blue shifts were observed in the films annealed at 973 K. The large blue shifts reported in amorphous BaTiO<sub>3</sub> films were attributed to an increase in the inter-atomic spacing due to excess volume and absence of long-range order in the lattice [25]. However, defects such as oxygen vacancies played an important role in amorphous perovskite films. The presence of oxygen vacancies in the annealed BST films was supported by photoluminescence (PL) studies. It was found that there was a gradual change of intensity of the PL peak corresponding to oxygen vacancies with higher annealing temperature. This observation was correlated to a decrease in the number of oxygen vacancies at higher annealing temperature.

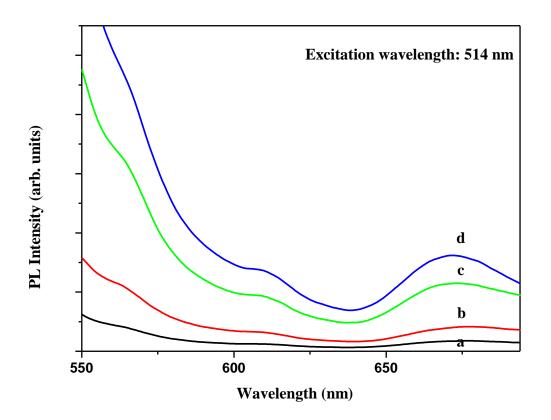
The refractive index of the BST films is evaluated from the spectra and the values of refractive index corresponding to as-deposited and annealed films are given in **Table 2**. These values are in the range of 1.8 - 2.1. In the current case, while there is shrinkage as evidenced by the decrease in thickness on annealing, the refractive index also increases with increase in annealing temperature. This leads to the conclusion that only at higher temperatures do the films achieve required stoichiometry due to the release of organic residues. This causes an increase in refractive index and decrease in thickness for BST films annealed at higher temperatures.

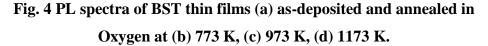
## 3.4. Photoluminescence studies

PL spectra of the as-deposited and annealed BST thin films on quartz substrates at different temperatures, excited using light of wavelength 514 nm are shown in **Fig. 4**. Free-exciton levels and defects or impurity levels are two types of energy levels found



in the forbidden band of titanate. The as-deposited BST film contributed by imperfections and defects, did not show any spectral features compared to the annealed films. The absence of the PL peaks in the spectra of the as-deposited samples supports this conclusion. Annealing process reduces the impurity sites and structural defects such as oxygen vacancies.





The broad intense emission peaks at 670 nm (red emission) and weak emission peaks at 610 nm (orange emission), and 565 nm (green emission) were observed in the spectrum during annealing in oxygen. A configuration coordinate model can be employed to the luminescence process in nanocrystal BTO [26]. In perovskites, such as BTO, STO there is a fundamental unit of  $TiO_6$ - $TiO_5$  octahedron clusters. Oxygen vacancies, surface states, OH defects and non-central symmetric  $Ti^{3+}$  are intrinsic



# JOURNAL of dbct

structural defects which can be responsible for the change of the octahedron configuration. The broad intense red emission in BST films is due to charge transfer via intrinsic defects inside oxygen octahedron. The emission peak at 610 nm (orange) may be due to the regions with local oxygen excess. The emission at 613 nm was also reported in sol-gel derived BT films [27]. The other weak emission is at 565 nm (green). The green luminescence of BST films are associated with the recombination of electrons and hole polarons forming a charge transfer vibronic exciton (CTVE). It can be seen that the PL emission peaks exhibit a blue shift at higher annealing temperature in oxygen. The blue shift is believed to originate from the strain in the thin film due to lattice distortions.

When the annealing temperature increases from 773 K to 1173 K, the PL intensity correspondingly increases; whereas the frequencies at 670, 610 and 565 nm do not make appreciable change. The synthesis temperature does not cause the PL frequency and PL intensity to change greatly. To interpret the results, discuss the energy band structure of BST. Band gap of BST from an optical absorption edge ranges from 3 to 3.6 eV[15]. Photon energy for a 514 nm excitation is too low to cause a direct transition. In addition, the direct transition energies should show little size dependence. A configuration coordinate model can be employed to elucidate the luminescence process in BST films. It is known that there is a fundamental unit of TiO<sub>6</sub> octahedron in perovskites such as BTO and STO. To elucidate the results, there are two factors which affects the increase in PL intensity viz the oxygen vacancy concentration and crystallite size. The increase in PL intensity with annealing temperature is mainly attributed to the corresponding increase in oxygen vacancy concentration. Higher concentration of oxygen vacancy is acting as radiative centres in the samples [28]. The crystallite size makes major influence on the PL spectra due to increases from 9 to 39 nm as the heat treatment temperature increases from 773 to 1173 K. The size effect is taken into account to make main contribution to the PL intensity, since the crystallite size increases from 9 to 39 nm with the annealing time of 3 h. Different extrinsic and



intrinsic defect distribution including oxygen vacancies and surface states make contribution to the luminescence in BST films.

Zhang et al [29] and Leite et al [30] demonstrated that the crystalline and amorphous nanoparticles are responsible for the green- red PL at room temperature in titanates. A high PL emission requires some degree of structural order together with a certain amount of structural disorder. At higher heat treatment temperature, the more frequent the TiO<sub>6</sub> octahedron and more ordered the structure ie, crystallization improved. This is in good agreement with the results of XRD and SEM analysis. The highest values of stress and strain are observed for films annealed at 773 K, also the crystallite size and PL intensity decreases in these films. During annealed at higher temperatures (973- 1173 K) the crystallite size and PL intensity increases, and the lowest values of stress and strain were obtained. The enhanced values of red emission in BST films annealed at higher temperatures may be due to the lower values of stress and strain in XRD spectrum. From the XRD studies it can be noted that as the annealing temperature increases there is an increase in crystallite size and attains crystallization. The SEM analysis reveals well defined microstructure is obtained at annealing temperatures 773-1173 K. This result is in agreement with the XRD and PL studies.

# 4. Conclusion

Nanocrystalline  $Ba_{0.7}Sr_{0.3}TiO_3$  thin films were deposited onto quartz substrates by sol-gel dip coating method. The XRD analysis shows that the as-deposited films are amorphous in nature and the onset of crystallization was about 773 K. The crystallite size of the films increases from 9 to 39 nm for the films annealed at 773 to 1173 K respectively. The lattice parameters and lattice strain decreases with increase in annealing temperature. SEM studies revealed that the films have smooth and wellordered arrangement of grains. The prepared  $Ba_{0.7}Sr_{0.3}TiO_3$  films annealed in oxygen have numerous electronic and optoelectronic applications. The increase in optical band gap was observed in  $Ba_{0.7}Sr_{0.3}TiO_3$  films. The defect related visible emission (red) is



observed for annealed films. The increased intensity of BST thin films makes it suitable for display devices, such as electro- luminescent, light-emitting or lasing devices.

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# SYNTHESIS, CHARACTERIZATION AND ANTIMICROBIAL STUDIES OF COPPER(II) COMPLEXES OF 2,3-(DIIMINO-4'-DIANTIPYRINYL)BUTANE

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#### Abstract

The synthesis, characterization and antimicrobial studies of the perchlorate, nitrate, chloride and bromide complexes of copper(II) with a new Schiff base ligand 2,3-(diimino-4'-antipyrinyl)butane (BDAP) prepared from 4-aminoantipyrine and 2,3-butanedione have been done by elemental analysis, electrical conductance in non-aqueous solvents, infrared and electronic spectra and magnetic susceptibility measurements as well as thermogravimetry. The UV-VIS spectral data and magnetic susceptibility measurements suggest an octahedral geometry around the central metal ion for all the complexes. The thermogravimetric analysis shows that all the complexes undergo two stages of decomposition except perchlorate complex, which undergoes one stage decomposition. Biological screening analyses of the ligand and the complexes reveals that the Schiff base and its metal complexes show significant activity against microorganisms.

*Keywords:* 2,3-(diimino-4'-antipyrinyl)butane, cobalt(II), 4-aminoantipyrine, magnetic susceptibility, Biological screening.

# 1. Introduction

4-aminoantipyrine and its versatile Schiff base derivatives have been extensively investigated and effectively applied in biological, analytical, clinical and pharmacological areas [1-3]. Antipyrine derivatives are reported to exhibit analgesic and anti-inflammatory effects [4,5] antiviral [6] and antibacterial [7] activities. It is also been used as hair colour additives[8] and to potentiate the local anesthetic effect of



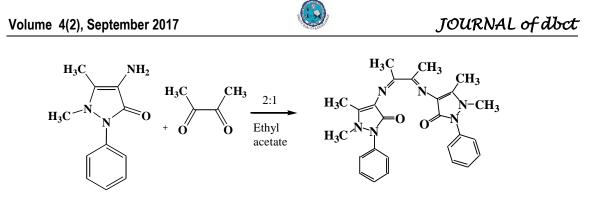
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lidocaine [9]. These compounds have been used in spectrophotometric determination of metal ions. Many of these reagents give intense colours with transition metal ions, providing sensitive probes [10] and some of them can also coordinate to rare earth ions to form metal complexes with interesting structures [11]. The complexes derived from such ligands possess these physiological properties with varying intensity. Also most of these complexes are showing antitumor activities [12]. In the present study we have synthesized four complexes (1-4) of copper(II) with varying counter ions with the Schiff base ligand 2,3-(diimino-4'antipyrinyl)butane (BDAP). All the complexes were characterised with different analytical and spectrometric techniques. The application study of these compounds such as the antimicrobial analysis was also carried out.

# 2. Experimental

Copper present in the complexes were estimated by EDTA titration [13]. Volhard's method was used for the estimation of chloride content and perchlorate content by Kurz's method [14]. The elemental analyses of the complexes were done using a Heraeus-CHN-Rapid Analyzer. Molar conductance of 10<sup>-3</sup>M solutions of the complexes was measured using a Systronics conductivity bridge with a dip conductance cell having two platinum electrodes. The infrared spectra in the range 4000-400 cm<sup>-1</sup> were recorded in a Shimadzu FTIR 8400 S spectrophotometer using KBr pellet technique and in a Bruker IFS 66V FTIR spectrometer in the range 500-100cm<sup>-1</sup> using polyethylene powder. Electronic spectral studies of the Schiff base and the complexes in solid state were carried out on a Shimadzu UV-visible spectrometer UV-2450. Magnetic susceptibility measurements were done for all the complexes.

The Schiff base ligand 2,3-(diimino-4'-antipyrinyl)butane (BDAP) was prepared by the condensation between 2,3-butanedione and 4-aminoantipyrine in ethyl acetate medium for about 5 hours in 1:2 molar ratio.



The syntheses of the complexes were done by the following procedure. A quantity of 0.72 g, 0.64 g and 0.69 g of  $Cu(ClO_4)_2.6H_2O$ ,  $Cu(NO_3)_2.6H_2O$  or  $CuBr_2.6H_2O$  respectively in methanol (10mL) and 0.59 g of  $CuCl_2.2H_2O$  in acetone (10mL) was added to a boiling suspension of 0.912 g of ligand in ethyl acetate (100mL). The mixture was refluxed for 5hours. The precipitated complexes were filtered and washed repeatedly with hot ethyl acetate to remove the excess ligand. It was then recrystallized from ethanol and dried under vacuum over phosphorus(V) oxide. The complexes formed were dark green non-hygroscopic solids which are soluble in acetone, ethyl acetate and nitrobenzene.

#### 3. Results and discussion

The characterizations of the complexes were done by elemental analysis, IR and electronic spectra and magnetic susceptibility measurements and the data is given below.

- [Cu(BDAP)(ClO<sub>4</sub>)](ClO<sub>4</sub>) C<sub>26</sub>Cl<sub>2</sub>CuH<sub>28</sub>N<sub>6</sub>O<sub>8</sub> (1) dark green solid, Yield: 76%, M.pt.: 170°C, anal(%). Calcd(%) for C<sub>26</sub>Cl<sub>2</sub>CuH<sub>28</sub>N<sub>6</sub>O<sub>8</sub>, C 43.2, H 4.09, N 11.59, Cu 8.80, ClO<sub>4</sub> 9.81. Found C 43.40, H 3.89, N 11.68, Cu 8.83, ClO<sub>4</sub> 9.86. IR spectral data (KBr, cm<sup>-1</sup>); 1618 (s), 1583 (m), 1135(s), 1115(m), 1081(s), 1020(s), 932(m), 636(m), 552(m), 453(w). Electronic spectral data (DMF, cm<sup>-1</sup>); 29411, 37313, 31055, 14577. μ<sub>eff</sub> (BM) 2.27.
- [Cu(BDAP)(NO<sub>3</sub>)](NO<sub>3</sub>)(2) dark green solid, Yield: 71%, M.pt.: 164°C, anal(%).
   Calcd(%) for C<sub>26</sub>CuH<sub>28</sub>N<sub>8</sub>O<sub>6</sub>, C 48.36, H 4.42, N 17.27, Cu 9.81. Found C 48.48, H 4.3, N 17.39, Cu 9.86. IR spectral data (KBr, cm<sup>-1</sup>)1627 (s), 1587 (m), 1492(s),

1382(s), 1298(m), 827(m), 552(m), 452(w). Electronic spectral data (DMF, cm<sup>-1</sup>), 27933, 36630, 29850, 14556. μ<sub>eff</sub> (BM) 1.49.

- [Cu(BDAP)Cl<sub>2</sub>] (3) dark green solid, Yield: 78%, M.pt.: 156°C, anal(%). Calcd(%) for C<sub>26</sub>Cl<sub>2</sub>CuH<sub>28</sub>N<sub>6</sub>, C 52.64, H 4.81, N 14.21, Cu 10.69, Cl 11.65. Found C 52.84, H 4.7, N 14.22, Cu 10.75, Cl 11.99 IR spectral data (KBr, cm<sup>-1</sup>)1629 (s), 1587 (m), 309(w), 554(m), 453(w). Electronic spectral data (DMF, cm<sup>-1</sup>), 28736, 38167, 30864, 14430. μ<sub>eff</sub> (BM) 1.42.
- 4. [Cu(BDAP)Br<sub>2</sub>] (4) dark green solid, Yield: 79%, M.pt.: 174°C, anal(%). Calcd(%) for Br<sub>2</sub>C<sub>26</sub>CuH<sub>28</sub>N<sub>6</sub>, C 45.64, H 4.24, N 12.28, Cu 12.28, Br 23.25. Found C 45.90, H 4.10, N 12.35, Cu 12.35, Br 23.50. IR spectral data (KBr, cm<sup>-1</sup>)1620 (s), 1587 (m), 310(w), 552(m), 453(w). Electronic spectral data (DMF, cm<sup>-1</sup>), 28735, 37735, 31250, 14513. μ<sub>eff</sub> (BM) 1.76.

From the infrared spectral data it is concluded that the Schiff base BDAP acts as a neutral tetradentate ligand in all the complexes because, the strong infrared band observed at 1649cm<sup>-1</sup>, characteristic of C=O stretching vibration of BDAP is found to be shifted to the region 1629–1618cm<sup>-1</sup> and the intense band due to azomethine nitrogen is shifted to the region 1587–1583cm<sup>-1</sup> indicating the coordination of both the carbonyl and both the azomethine nitrogens resulting in the formation of three five membered rings, there by imparting considerable stability to the complexes [15].

In all the complexes irrespective of anions present, the  $n \rightarrow \pi^*$  transitions are found to be blue shifted to the regions 27933–29411cm<sup>-1</sup> and the  $\pi \rightarrow \pi^*$  transitions are found to be red shifted[16] to the region 36630–38167cm<sup>-1</sup>. The absorption bands observed in the region 14430–14577cm<sup>-1</sup> is attributed to  ${}^{2B}_{1g} \rightarrow {}^{2E}_{g}_{t}$  ransition which is consistent with an octahedral geometry around the copper(II) ion in all the complexes. Also an intense band in the region 29850–31250cm<sup>-1</sup> observed in all the complexes may be due to charge transfer transitions

The magnetic moment values of the complexes vary in the range 1.42–2.27BM which confirms octahedral geometry for all the complexes. The magnetic moment



values for the chloride and nitrate complex is lower than the value expected for one unpaired electron indicating the presence of metal–metal interaction[17].

The molar conductance values of the Cu(II) complexes of BDAP ( $10^{-3}$ M solution) were measured in acetonitrile, DMF, ethanol and methanol and the values are given in table 1. The molar conductance values fall in the range suggests 1:1 electrolytes for perchlorate and nitrate complexes and non-electrolyte for chloride and bromide complexes<sup>18</sup>. Thus the complexes may be formulated as [Cu(BDAP)X]X (X = ClO<sub>4</sub><sup>-</sup> or NO<sub>3</sub><sup>-</sup>) and [Cu(BDAP)X<sub>2</sub>] (X = Cl<sup>-</sup> or Br<sup>-</sup>)

	Molar conductance					
Complex	Acetonitrile	DMF	Methanol	Ethanol	Type of electrolyte	
[Cu(BDAP)(ClO <sub>4</sub> )](ClO <sub>4</sub> )	129.5	72.02	107.2	61.95	1:1	
[Cu(BDAP)(NO <sub>3</sub> )](NO <sub>3</sub> )	153.15	76.07	99.09	58.24	1:1	
[Cu(BDAP)Cl <sub>2</sub> ]	101.3	47.2	45.27	54.37	non- electrolyte	
[Cu(BDAP)Br <sub>2</sub> ]	110.2	27.07	55.07	-	non- electrolyte	

**Table 1** Molar Conductance<sup>a</sup> data of the Copper(III) Complexes<sup>b</sup> of BDAP

<sup>a</sup> ohm<sup>-1</sup>cm<sup>2</sup>mol<sup>-1</sup> <sup>b</sup> 10<sup>-3</sup> M solution

From the above results we can conclude that all the complexes undergo two stage decomposition except perchlorate complex, and the mass loss found is in good agreement with the calculated values with a final residue CuO. The perchlorate complex which is the least stable complex undergoes charring and the chloride complex is the most stable. The thermal stability of the complexes is in the order chloride > nitrate > bromide > perchlorate.

The antibacterial and antifungal analysis results of Copper(II) complexes shows that the Schiff base ligand BDAP and all the complexes were showing a very good



antibacterial and antifungal activity against all the four gram positive and gram negative bacteria among the six bacteria and the fungus compared to the standard [19]. Generally, the complexes have shown higher activity than the Schiff base ligand. The increased activity upon chelation is due to partial sharing of the positive charge of the metal in chelated complex with the ligand's donor atoms so that there is an electron delocalization over the whole chelate ring [20].

The phenomenological aspect of thermal decomposition of all the complexes of BDAP is presented in tables 2.

Complexes	Stages of Decomposi	Temp.	DTA peak (°C)		Decompositio	Total Mass Loss(%)	
-	tion	(°C)		species	n species	Found	Calculated
[Cu(BDAP) (ClO <sub>4</sub> )](ClO <sub>4</sub> )	Ι	220-238	236	Nil	Charring of the complex	98	100
[Cu(BDAP)(NO <sub>3</sub> )]	Ι	182-221	203	CuO	Two nitrate ions	19.31	19.25
(NO <sub>3</sub> )	II	221-550	443	CuO	One molecule BDAP	69.93	70.87
[Cu(BDAP)Cl <sub>2</sub> ]	Ι	178-403	242	CuO	Two chloride ions	12.65	11.99
	II	403-699	521	CuO	One molecule BDAP	77.24	78.5
[Cu(BDAP)Br <sub>2</sub> ]	Ι	189-479	285	CuO	Two bromide ions	22.64	23.50
	II	479-703	603	CuO	One molecule BDAP	66.7	67.14

**Table 2** Phenomenological data for the thermaldecomposition of the Cu(II) complexes of BDAP

Hence the lipophilic character of the metal will increase. BDAP and all the complexes are not showing any activity against two bacteria, *V.parahaemolyticus* and *B. subtilis*. The graphical representation of their activity against bacteria and fungus is shown in fig 1 and 2. From the figure we can see that the antibacterial activity of BDAP and its Cu(II) complexes are [Cu(BDAP)NO<sub>3</sub>]NO<sub>3</sub> > [Cu(BDAP)ClO<sub>4</sub>]ClO<sub>4</sub>  $\approx$  [Cu(BDAP)Cl<sub>2</sub>]  $\approx$  [Cu(BDAP)Br<sub>2</sub>] > BDAP.. All the complexes seem to be promising



as they showed antibacterial activity higher than standard streptomycin. Also we can see that all complexes are showing same range of antifungal activity which is higher than the ligand BDAP.

Compound	V.parahae molyticus	S.typhi	A. hydrophila	B. subtilis	E.coli	S.weltevred en
BDAP	0	20	23	0	19	19
[Cu(BDAP)(ClO <sub>4</sub> )](ClO <sub>4</sub> )	0	25	22	0	21	22
[Cu(BDAP)(NO <sub>3</sub> )](NO <sub>3</sub> )	0	26	24	0	20	21
[Cu(BDAP)Cl <sub>2</sub> ]	0	25	20	0	20	21
[Cu(BDAP)Br <sub>2</sub> ]	0	25	23	0	22	22
Standard (Streptomycin)	4	15	16	13	12	15

 Table 3 Antibacterial activity of BDAP and its Cu(II)
 Complexes (Zone diameter in mm)

**Table 4** Antifungal activity of BDAP and its Cu(II)Complexes against *Trichophyton tonsurans* 

Compound	(Zone diameter in mm)
BDAP	14
[Cu(BDAP)(ClO <sub>4</sub> )](ClO <sub>4</sub> )	26
[Cu(BDAP)(NO <sub>3</sub> )](NO <sub>3</sub> )	26
[Cu(BDAP)Cl <sub>2</sub> ]	25
[Cu(BDAP)Br <sub>2</sub> ]	26
Chlorothalonil	34
DMSO	0



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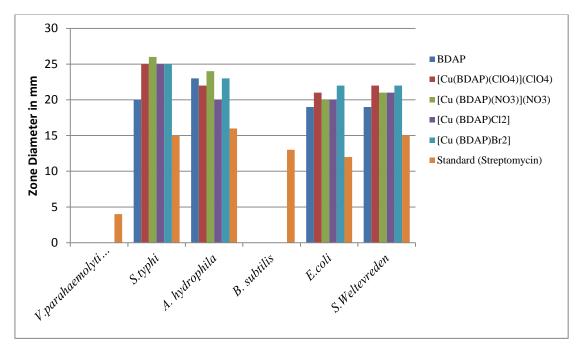


Figure 1 Graphical representation of Antibacterial Analyses of BDAP and its Cu(II) complexes

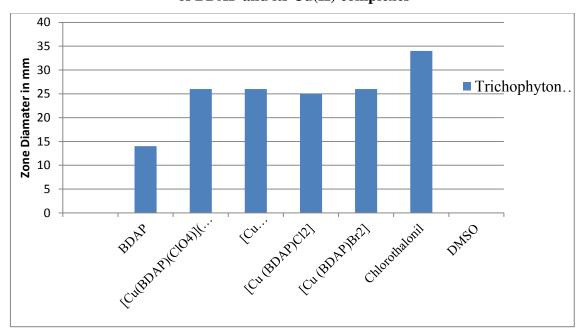
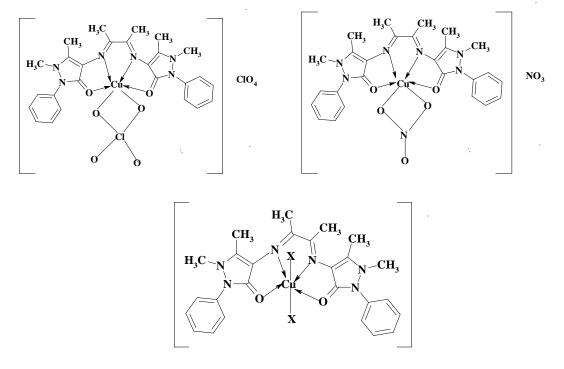


Figure 2 Graphical representation of Antifungal Analyses of BDAP and its Cu(II) complexes

## 4. Conclusion

From the above results we can conclude that the complexes may be formulated as [Cu(BDAP)X)]X where  $X = ClO_4^-$  or  $NO_3^-$  and  $[Cu(BDAP)X_2]$  where  $X = Cl^-$  or  $Br^-$  from the elemental and molar conductance data. The infrared spectral data suggest that BDAP acts as a neutral tetradentate ligand coordinating through both the carbonyl oxygen and azomethine nitrogen. The electronic spectra and magnetic moment suggest a octahedral geometry around the copper(II) ion in all the complexes. From the antibacterial and antifungal studies we come to a conclusion that all the complexes were shown very good activity against some selective pathogenic bacteria and fungus. The graph depicts that the complexes were shown higher antibacterial activity than the ligand and the standard. Based on the above observations the tentative structures of the complexes were given in figure 3.



# (where X = Cl<sup>-</sup> or Br<sup>-</sup>)

Figure 3. Tentative structures of copper(II) complexes of BDAP

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# ADSORPTION EQUILIBRIAM OF METHYLENE BLUE AND ANILINE BLUE DYES ONTO *MELASTOMA MALABATHRICUM* L.BASED ACTIVATED CARBON

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# Abstract

The use of cheap and ecofriendly adsorbents as an alternative substitution for activated carbon in the removal of dyes from wastewater was tried. In the present study, activated carbon prepared from *Melastoma malabathricum* – a weed (MMAC) was used as adsorbent for methylene blue (MB) and aniline blue (AB) from aqueous solution. The effects of initial concentration of dye, contact time, temperature of solution and pH on MB and AB adsorption onto MMAC were investigated. Results showed that the adsorption of dyes was favorable at pH 6-7 whereas the adsorption uptake was found to increase with increase in initial concentration, contact time and temperature of solution. The maximum color removal efficiencies of MMAC at dosage of 0.1g was found to be 90% within one and five min. for MB and AB from an aqueous solution of 5mg/l and 10mg/l respectively. Experimental data were analyzed by model equations such as Langmuir and Freundlich isotherms and it was found that Freundlich isotherm model best fitted the adsorption data. The correlation coefficient R<sup>2</sup> obtained for MB and AB were 0.9762 and 0.9484 respectively. It is proposed that MMAC, in a batch or stirred tank reactor could be employed as a low cost alternative in wastewater treatment for the removal of dyes.

*Keywords* - *Melastoma malabathricum; Activated carbon; Methylene blue and Aniline blue; Adsorption isotherm* 



#### 1. Introduction

Several processes have been applied for the treatment of dyes from wastewater such as chemical, biological and physical. Even though, chemical and biological treatments are effective for removing dyes, they require special equipment and are energy intensive in terms of addition of large amounts of byproducts often generated [1]. In recent years, the physical method through adsorption process, based on activated carbon material has been considered to be a superior technique as compared to others. However, commercial activated carbon is quite expensive and has thus limited their application [2]. Due to economic reasons, the discovery of alternative adsorbent to replace the costly activated carbon is highly encouraged.

Today a wide range of bio-absorbent are used to treat organic pollutants like dyes from various industries. Igwegbe [3] prepared activated carbon from *Mucuna pruriens* seeds shells and was used for the removal of congo red and malachite green from aqueous solution. Banana peel was used to prepare activated carbon and is used for adsorption of basic dye, methylene blue (MB) from waste water [4]. Removal of azure B dye from aqueous solution has been carried out on rice husk activated carbon (RHAC) by adsorption [5]. Geetha and Belagali [6] prepared activated carbon from *Acacia Concinna* and used for dye removal. Adsorption of methylene blue onto activated *Prosopis spicigera*, prepared from dried fruit by batch adsorption method has been investigated by Venkateswaran [7].

The aim of this study was to develop *Melastoma malabathricum* – a weed based activated carbon (MMAC) for removal of methylene blue (MB) and aniline blue (AB) from aqueous solution.

# 2. Materials and Methods

- I. Plant used for the study: Melastoma malabathricum L. (a weed)
- II. Preparation of activated carbon: Activated carbon prepared from stem of Melastoma malabathricum.



# **III. Different adsorbates used for the study:** Methylene blue and Aniline blue

# **IV. Adsorption studies:**

For batch adsorption studies, 0.1g of adsorbent was mixed with 50ml aqueous dye solution (5mg/l MB and 10mg/l AB) in 250ml iodin flasks. The mixture was agitated at 150rpm at 30°C until equilibrium was reached. The concentration retained in the adsorbent phase (qe, mg/g) was calculated by using Eq. (1):

Removal (%) = 
$$(Co - Ce) \times 100$$
  
Co

where Co and Ce are the liquid-phase concentrations at initial state and at equilibrium (mg/l), respectively.

## V. Parameters analyzed:

- i. Effect of contact time on dyes adsorption
- ii. Effect of adsorbent dosage on dyes adsorption
- iii. Effect of solution pH on dyes adsorption
- iv. Effect of temperature of solution on dyes adsorption
- v. Adsorption isotherm

# 3. Results and Discussion

# 3.1. Effect of contact time on dye removal

Contact time is inevitably a fundamental parameter in all transfer phenomena such as adsorption. Consequently it is important to study its effect on the capacity of retention of dyes by adsorbent. Figure **1** indicates the typical form of saturation curves showing that the equilibrium is attained at 1minute for MB and at 5minutes for AB. These results also indicated that up to 85-90% of the total amount of dye uptake was found to occur in the first rapid phase. The higher sorption rate at the initial period may be due to an increased number of vacant sites on the adsorbent available at the initial stage, as a result there exist increased concentration gradients between adsorbate in solution and adsorbate on adsorbent surface. This increased in concentration gradients



tends to increase in dye sorption at the initial stages. As time proceeds this concentration is reduced due to the accumulation of dye particles in the vacant sites leading to a decrease in the sorption rate [8].

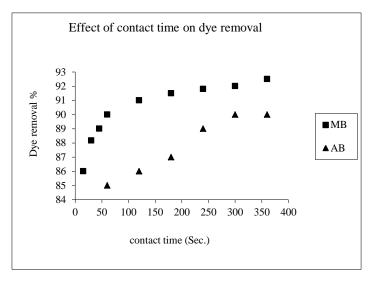
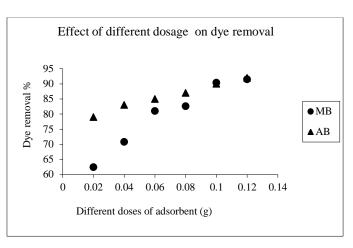


Figure – 1

# 3.2. Effect of Dosage on dye removal

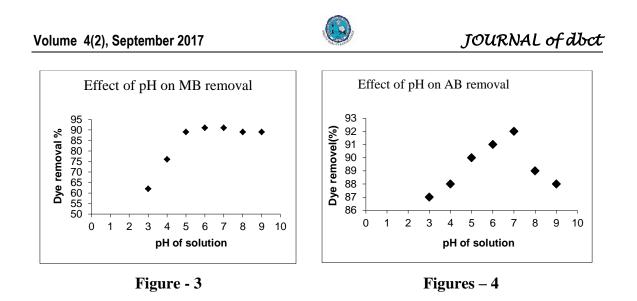
In order to investigate the effect of mass of adsorbent on the adsorption of dye, a series of adsorption experiments was carried out with different adsorbent dosage at an initial dye concentration of 5 and 10 mg/l for MB and AB respectively. Figure-2 shows the effect of adsorbent dosage on the removal of dyes. The percentage removal of dyes increased with the increase in adsorbent dosage. This can be attributed to increased adsorbent surface area and availability of more adsorption sites resulting from the increased adsorbent dosage. But the amount of dye adsorbed per unit mass of charcoal decreased with increase in adsorbent dosage [9].





## 3.3. Effect of pH on dye removal

The pH of the aqueous solution is an important controlling parameter in the adsorption process and thus the effect of pH was studied by varying it in the range of 3-9 as shown in Figures **3&4**. The pH of the system exerts profound influence on the adsorption capacity of adsorbate molecule presumably due to its influence on the surface properties of the adsorbent and ionization or dissociation of the adsorbate molecule. At pH 3 the removal was minimum but it increased along with increasing initial pH of dye solution. The maximum percentage removal of dye is observed at pH 6 and 7. The adsorption of these positively charged dye groups on the adsorbent surface is primarily influenced by the surface charge on the adsorbent which in turn is influenced by the solution pH. The result showed that availability of negatively charged groups at the adsorbent surface is necessary for the adsorption of basic dyes to proceed. The low uptake under acidic condition is probably due to the presence of excess of H<sup>+</sup> ions competing with the cations of the dyes for the adsorption sites. Thus as the pH increased, more negatively charged surface was available facilitating greater dye removal [10].



#### **3.4.** Effect of temperature on dye removal

The effect of temperature on adsorption of dye solution at temperature of 30, 40 and 50°C has shown in **Figures 5&6.** Results indicate that the adsorption capacity of activated carbon for the two dyes increased with temperature. This may be a result of increase in the mobility of the large dye ion with temperature. An increasing number of molecules may also acquire sufficient energy to undergo an interaction with active sites at the surface. Furthermore, increasing temperature may produce a swelling effect within the internal structure of the activated carbon enabling large dyes to penetrate further [11].

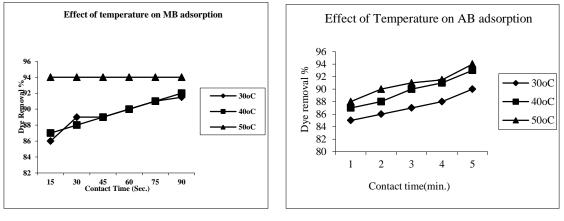


Figure - 5

Figure - 6



#### 3.5. Adsorption isotherms

The study of the adsorption isotherm is fundamental, and plays an important role in the determination of the maximal capacity of adsorbents. Freundlich model was used for the analysis of the adsorption capacity. It can be seen that the correlation factor is close to unity ( $R^2$  -0.9702 for MB and 0.9805 for AB) indicating a good representation of the experimental results. If  $R^2$  value is closer to zero it indicates the surface heterogeneity.

# 4. Conclusion

Activated carbon from *Melastoma malabathricum* has a good adsorption capacity for the adsorption of Methylene blue and Aniline blue. The equilibrium time for the adsorption of MB is 1 min. and for AB is 5 min. The adsorption process of dyes can be described by Freundlich isotherm model. Removal of dyes increases with increase of adsorbent dosage and temperature. The maximum adsorption of dyes took place in the pH range 6-7. *Melastoma malabathricum is* a common plant in Kerala. Charcoal prepared from this plant is used as a low cost adsorbent for the removal of dyes from waste water.

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# ISSN 2348-7984 IMPACT OF ECOLOGICAL PARAMETERS ON THE ICHTHYOFAUNA OF RIVER KURUNTHURAPUZHA.

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### Abstract

An investigation on the impact of water quality parameters on the icthyofauna of river Kurunthurapuzha was conducted with an intention of determining the records of water quality variables. During the present study for about one year, the mean values recorded for physicochemical parameters of water samples collected from the river were the following, temperature 25.25 degree centigrade, pH 6.608, salinity 6.75 ppt., dissolved oxygen 7.433 mg / l, ammonia 1.917 mg / l and transparency 81.958 cm. Each environmental parameter in the aquatic habitat can influence the biodiversity from microorganisms to fishes [1]. All the values obtained for each parameter during the study were within the limits prescribed by the standard methods for the examination of water, sewage, and industrial waste. Hence this river has the qualifications that it is a calm, undisturbed and unpolluted flowing system with favourable climatic conditions suitable for culture purpose.

Keywords: Ecological parameters, water quality parameters, river Kurunthurapuzha.

### 1. Introduction

As in the terrestrial environment, all the organisms in the aquatic ecosystem are influenced by so many environmental factors either directly or indirectly. The habitat of an organism has specific characteristics, and a specific mixture of biotic and abiotic factors that determine the quality of the habitat for that organism [2]. To survive within this particular habitat, organisms have adaptations that enable them to carry out their life processes & they are influenced by



# JOURNAL of dbct

various factors. The length, drainage area, water temperature and the sediment load of each river are variable and hence they have a direct influence on the diversity of a riverine ecosystem [3 & 4]. Almost all the water bodies are dynamic depending on their composition, volume of water, relevant quality parameters and also the features of biota they have.

An adequate knowledge about the physical, chemical and biological environment is essential for understanding the nature & behaviour of an aquatic system. Freshwater quality parameters are those abiotic & biotic factors that can be used to characterise a freshwater water body. The most important factors related to aquatic organisms are temperature, light, volume or depth of the water body, salinity dissolved oxygen, ammonia, pH etc. Hence an attempt has been made to analyse whether there is any relation between or variation among physicochemical factors & also their influence on the biota in the ecosystem.

The changes in water quality and fish diversity have been assessed and reported by different eminent scientists such as Kaladharan *et al.*, Salam *et al.*, Gopalan & Nair, Lakshmanan *et al.*, Menon *et al.*, Roozen *et al.*, Leghari *et al.*, Yousafzai *et a.l.*, and Manju *et al.*, [5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 & 16].

### 2. Materials and Methods

Sampling for the present study was carried out for one year from December 2012 to November 2013 from different locations to monitor the variations in different environmental parameters over the year. In the locality small boats were used as craft for fishing by the local fishermen. Samples were collected based on the general guidelines for water collection for dissolved oxygen estimation as per the Winkler method [17] in APHA. Physicochemical characters such as dissolved oxygen, temperature, salinity, pH, ammonia & transparency were measured. Samples were collected in triplicate once in a month after rinsing the bottles with distilled water followed by river water. Oxygen was determined by the Winkler's



method, fixing the sample at the collection point itself. Water surface temperature was measured at the site using a thermometer and the salinity too was measured at the site of collection using a hand held salinometer. Salinity was also confirmed at the laboratory by the titrimetric method.

Hydrogen ion concentration of the sample was checked at the spot of collection using a pH paper and further determined at the laboratory using a pH meter. Transparency or visibility of the water was checked with the help of a secchi disc. Ammonia was determined by the phenol hypochlorite method using a spectrophotometer. All the observations were recorded, analysed statistically and documented.

### 3. Results and Discussion

The mean values for water quality parameters comprising water temperature, the oxygen dissolved in the water, the saline content in the water, the hydrogen ion concentration of the water, the ammonia content in the water and also the transparency of the water, from the water samples collected, have been tabulated and presented in Table.1. Based on visual observations during sampling, the water was consistently clear except during the monsoon seasons.

The data recorded were assessed (Table.1) and also analysed statistically (Table. 2). The correlation between the parameters of water samples were checked and are shown in Tables 3 & 4. Correlation between salinity and temperature was positive but not significant. The correlations between salinity and ammonia and with dissolved oxygen were negative but significant whereas the correlations between salinity and pH with transparency were +ve and significant. The correlation between temperature & ammonia; and temperature & dissolved oxygen were both negative but not significant. The correlation between temperature and transparency was positive and significant whereas correlation between temperature and pH was +ve but not significant. While correlation



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between ammonia & pH; and ammonia & transparency were negative but not significant, the correlation between ammonia & dissolved oxygen was positive and significant. Between PH and transparency, and between pH & dissolved oxygen the correlations were positive but not significant. Correlation between transparency and dissolved oxygen was negative but not significant.

Aquatic habitat generally has all physical, chemical and biological features of the environment necessary to sustain life [18]. Temperature is an important ecological factor among the biotic factors of the fish environment & this exerts a strong influence on the biogeochemistry of freshwater. Generally in the case of poikilotherms, standard metabolic rate increases continuously with temperature. There is a linear relationship between temperature and the rate of oxygen consumption evidently pointing to the fact that temperature influences on respiratory metabolism of the fish is temperature dependent [19].

S. No.	Months	Salinity %0	Temperature Degree C	NH3 mg/l	рН	Transparency (cm)	D.O mg/l
1	December	0.5	16	1.6	6.1	58.0	6.6
2	January	0.4	18	1.8	6.1	62.0	6.9
3	February	0.7	23	1.5	6.5	69.0	6.7
4	March	0.8	31	1.3	6.8	100.0	7.0
5	April	1.5	32	1.2	7.2	140.0	6.5
6	May	1.6	32	2.0	7.0	120.0	6.9
7	June	0.1	21	2.5	6.1	70.0	9.1
8	July	0.3	22	2.4	6.4	86.0	9.2
9	August	0.4	26	2.1	5.8	83.0	8.0
10	September	0.1	30	2.0	6.3	62.5	6.0
11	October	0.7	28	2.0	7.6	65.0	8.5
12	November	1.0	24	2.6	7.4	68.0	7.8

Table 1	. Parameters of	water samples collect	ed in different months.
I UNIC I	• I ulumeters of	water bumples concet	



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It is known that the metabolic rate of aquatic organisms is closely dependent on the water temperature. The temperature recorded in this river ranged from 16 degree centigrade to 32 degree centigrade. The rate of influence is more in fishes comparatively since they are obligate poikilotherms. Mc Cauley & Huggins [20] reported that freshwater fish are capable of maintaining a fairly constant internal temperature close to preferred temperature by moving back and forth in the gradient. Brown [21] reported that the growth rate in fishes increase with increasing temperature to a maximum and then decline and in natural water bodies, the tropical fishes are likely to be exposed to high temperature during summer.

The temperature in adequate medium has a major influence on the oxygen demand of fish. The rate of chemical reactions, both catalysed and uncatalysed cellular processes, are closely controlled by the temperature. Absorption and its dissipation of heat affect water density and thus stratification and vertical circulation patterns. Thermocline can separate physical, chemical and biological processes and thereby alter the structure and function of the ecosystem. Metabolic rate increases twice or thrice for every rise in 10 degree centigrade. Increased metabolic rate leads to higher oxygen consumption and waste production like the production of carbon di oxide and ammonia.

Dissolved oxygen concentration is a fundamentally important parameter in aquatic systems and is influenced mostly by the water temperature. Oxygen is required by all aquatic animals for all the physiological activities. The activity, distribution, feeding etc. are closely related to the concentration of the dissolved oxygen. Similarly non biological factors that may affect dissolved oxygen concentration in water includes temperature that determines the solubility of gas in water, light that affects the level of photosynthesis, turbidity that affects light penetration. High salinity means water has less capacity to hold dissolved oxygen. Increased oxygen consumption occurs with increased salinity owing to the increase



in metabolic cost of regulation [22 & 23]. Oxygen is received mainly through the interaction of atmospheric air, or by photosynthesis. Volume of oxygen dissolved in water is dependent upon its temperature, its partial pressure and also the concentration of dissolved salts.

	Mean	Std. Deviation	Ν
Salinity	6.75	4.901	12
Temperature	25.25	5.463	12
Ammonia	1.917	0.455	12
pH	6.608	0.582	12
Transparency	81.958	25.767	12
Dissolved oxygen	7.433	1.062	12

Table 2. Mean & Standard deviation of parameters of water samples.

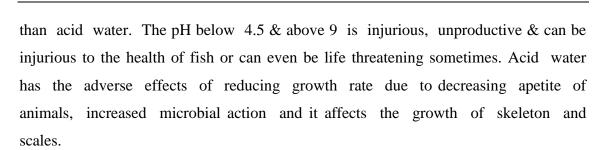
Oxygen is usually not a limiting factor to the biota of running waters. But it is an indicator of water conditions and its concentration is always related to the current temperature and substrate conditions. The biota of running waters is in several ways highly dependent on the ready availability of oxygen [24]. Fastly moving turbulent water typically contains greater concentrations of dissolved oxygen and this supports a greater biodiversity than the slow moving water of pools. The dissolved oxygen is necessary for the respiration of living organisms, both animals and plants. The stagnant water has comparatively less dissolved oxygen as compared to fresh and cold running water & the concentration may range from 4 to 15 ppm. Among fishes, cold and semi cold fishes are more sensitive to oxygen depletion than warm water fishes. Below 4 ppm of dissolved oxygen concentration, fish become under stress and cold water species may even die off.



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The dissolved oxygen concentration of water in the present study was ranged from 6.0 to 9.2 mg/l. This level is productive and can accommodate a good number of fish. According to IUCN [25] the reported level of dissolved oxygen in this area is 6.9 - 8 ppm. Biology of a system modifies the dissolved oxygen budget through three major process, photosynthesis, respiration & decomposition. In water, it can influence the distribution of fishes, survival, swimming performance, larval development and growth. The amount of oxygen that a given volume of water will hold in equilibrium decreases with increase in temperature. The extent of oxygen depends on the amount of organic loading rate of primary production, the light intensity etc. Shortage of oxygen can prevail in waters which contain a large amount of decaying organic matter. But suspended sediment loads due to flooding can result in increased water column respiration and decreasing dissolved oxygen concentrations [12] resulting in the emigration or death of many number of fishes [26]. This parameter is inevitable for the survival of the organism, it having a major influence on the distribution and migration of fishes and hence it needs to be closely monitored.

In rivers, pH is affected by the geology of the water source, atmospheric inputs and a range of other chemical contaminants. In most natural conditions variation in pH has little effect on fishes which can tolerate daily pH as well as temperature range. The pH is the intensity or power of activity & also alkalinity. It is a fundamentally important parameter for many chemical and biological processes in aquatic ecosystems. Aquatic plants & animals have difficulties tolerating pH below 5.0 and above 9.0. The pH of this river during the present study ranged from 5.8 to 7.6. This value falls within the limits of WHO [27]. This is favourable for fishes and show good quality water . IUCN [25] reported the pH value of 7.3 - 7.9 from the same area. A pH range of 6 - 9 appears to provide protection for the life of freshwater fish and bottom dwelling invertebrates. In general, pH neutral or slightly alkaline water is more productive



		Salinity	Temperature		pН	Transparency	Dissolved
		Summey	Temperature	- Inninomu	P	Transparency	oxygen
	Pearson Correlation	1	.559	369	.686*	.763**	323
Salinity	Sig. (2-tailed)	-	.059	.238	.014	.004	.306
	N	12	12	12	12	12	12
	Pearson Correlation	.559	1	265	.539	.688*	249
Temperature	Sig. (2-tailed)	.059	-	.405	.070	.013	.435
	Ν	12	12	12	12	12	12
	Pearson Correlation	369	265	1	066	400	.691*
Ammonia	Sig. (2-tailed)	.238	.405	-	.839	.197	.013
	N	12	12	12	12	12	12
	Pearson Correlation	.686*	.539	066	1	.357	.007
pH	Sig. (2-tailed)	.014	.070	.839		.254	.983
	Ν	12	12	12	12	12	12
	Pearson Correlation	.763**	$.688^{*}$	400	.357	1	165
Transparency	Sig. (2-tailed)	.004	.013	.197	.254	-	.608
	N	12	12	12	12	12	12
	Pearson Correlation	323	249	.691*	.007	165	1
Dissolved oxygen	Sig. (2-tailed)	.306	.435	.013	.983	.608	-
	Ν	12	12	12	12	12	12

Table 3. Degree of correlation between the parameters.

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).



Variable 1	Variable 2	Type of correlation			
Salinity	Month	Negative, weak			
Temperature	Month	Positive, moderate			
Ammonia	Month	Positive, high			
pH	Month	Positive, moderate			
Transparency	Month	Negative, moderate			
Dissolved oxygen	Month	Positive, moderate			
Temperature	Salinity	Positive, moderate			
Ammonia	Salinity	Negative, moderate			
pH	Salinity	Positive, high			
Transparency	Salinity	Positive, strong			
Dissolved oxygen	Salinity	Negative, moderate			
Ammonia	Temperature	Negative, moderate			
pH	Temperature	Positive, high			
Transparency	Temperature	Positive, high			
Dissolved oxygen	Temperature	Negative, moderate			
pH	Ammonia	Negative, weak			
Transparency	Ammonia	Negative, moderate			
Dissolved oxygen	Ammonia	Positive, high			
Transparency	рН	Positive, moderate			
Dissolved oxygen	pH	Positive, weak			
Dissolved oxygen	Transparency	Negative, moderate			

# Table 4. Correlation between the variables.

Salinity is a measure of ionic composition of water [28] postulated that a reduction in salinity causes increased oxygen uptake because of increased osmotic load. It is a fundamental water quality parameter maintained by freshwater



# JOURNAL of dbct

ecologists because of its influence on the biota. Most aquatic organisms are adapted to only a narrow range of salinity beyond which they cannot maintain their osmotic and ionic balance. Some species tolerate only intermediate levels of salinity while broadly adapted species can acclimate to variable salinity ranging from freshwater to sea water. Average salinity of freshwater through out the world is less than 0.2 ppt, brackishwater salinity 25 ppt & hypersaline seawater 40 ppt. The salinity in the water samples in the present study ranged from 0.1 ppt to 1.6 ppt. Euryhaline fishes like Wallago attu, Mugil cephalus are more tolerant to a wide range of salinity, often moving towards the estuary and coastal region. Backwaters and estuaries have more saline content and only those fishes which can withstand changes in salinity thrive best. The fishes like Heteroneustis spp., Oreochromis spp., Anabas spp., and Channa spp. inhabiting these water bodies have accessory respiratory organs to thrive in shallow water regions with low ambient oxygen content or even out of the water for short periods of time. Eels like Anguilla are migratory fishes and they can thrive in the bottom soil of the water body.

Light is one of the most important factors in the aquatic ecosystem and essential factor for life in aquatic ecosystems. Water medium becomes more transparent if there is more light in the medium. Solar radiation that penetrates the water column is absorbed by plants during photosynthesis, where light energy is used to convert inorganic nutrients into organic compounds. A seechi disc was used to measure the transparency of the water body. The seechi disc was lowered through the column so that its surface was visible to the operator above the water. Depth was determined as the distance below the surface at which the disc was no longer visible. Light energy in an aquatic environment greatly influences its primary productivity. The light penetration depends on the geographical location, shades provided by the surrounding vegetation, depth of the water body and also the turbidity. Turbidity in natural waters is due to suspended inorganic and organic substances like silt, clay and planktonic organisms. Turbidity



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varies mainly with the nature of the basin, the degree of exposure, and nature of inflowing sediments. It may be temporary or perennial. It is a limiting factor in productivity by restricting the penetration of light and also by absorbing considerable amount of nutrients. Large amount of suspended particles in water reduces transparency, penetration of sunlight and increases the water turbidity. The depth of the water column is determined by the transparency which in turn is determined by the turbidity of the water. Here, the transparency was found to range from 58 cm during the month of December to 140 cm during the month of April. Visual observation indicated that the river is healthy, without any pollution. The light intensity was maximum at the surface and declined exponentially with depth. Solar energy is the natural source of heat by which aquatic ecosystems may get warmed up. This solar energy may warm the upper surface layers of the water body and consequently the ambient oxygen may get increased.

The Ammonia content of the water estimated was ranged from 1.2 mg/l to 2.6 mg/l. Ammonium ion is toxic and that which accumulates in the body is excreted out to the water always through the gills. In contrast, Sodium and Potassium ions diffuse to the fish body through the gills and these ions also maintain the pH and salinity of the water in normal condition.

### 4. Conclusion

During the present study, while assessing the different parameters, the results revealed that physical habitat variables play a leading role in the existence of a species in a specific water body. All the water quality parameters assessed were found to conform to the normal range during the present study. Today fish contributes an important source of food and animal protein for much of the world's populations. During the monsoon season nature's fury usually adds a lethal punch to our fishing prospects owing to the inability of our fishermen for venturing into the sea at such times. All these contribute to shortage of fish in our domestic markets. At this juncture we can use our aquaculture potential for offsetting the paucity of fish production. By



exploiting the aquaculture potential of these waters in a judicious manner, it is possible to make Kerala an "Aquatic Food Bowl" of India.

In rivers, according to Yousafsai *et al.* [14], the quality of water may be affected by a combination of factors including sewage and industrial wastes, agricultural runoff and salinization. Adverse effects of the environment, climatic changes, increasing water temperature [29], declining water levels [30], tremendous use of pesticides and xenobiotic compounds [31], and routine dumping of city garbage in aquatic bodies have affected the fisheries productivity and may be the reason for the gradual reduction in the number of aquatic organisms, especially fish species in the aquatic ecosystem.

Physical parameters such as temperature, dissolved oxygen, salinity, light, pH etc. play an important role in the biogeochemistry of water bodies. Subtle changes in physical conditions can have profound impact on the water quality of the ecosystem, which may inturn affect the composition and temporal distribution of nutrients and biological communities. Results confirm that the water quality parameters are within the limits of United States Public Health [32] standards for surface waters and water quality in the present form in no way could be a limiting factor for inhabited fish population. Study report of Sreelatha [33] revealed that this river contained a total of 56 fish species of fishes and this water resource is also quite fit for raising commercial food fishes.

Habitats are largely influenced by temperature and in this water body the water temperature was found to range between 16 degree Celsius to 32 degree Celsius. The temperature can affect many limnological phenomenon like stratification of water, solubility of gases, pH, odour and taste. Even the metabolic activities of all the organisms in the media are influenced by temperature [15]. The metabolic rate increases two or three times for every 10 degree Celsius rise in temperature. Its rise not only changes the climatic conditions, but also intensely affect every single species and their habitat. Just as in the case of oxygen, when temperature rises some species may perish and some others may migrate.. The increased metabolic rate leads to higher oxygen



consumption and waste production (carbon dioxide and ammonia). Some species of fish can tolerate a wide range of temperature, like Cyprinoides for instance, which can tolerate even temperatures as high as 40 degree Celsius.

Temperature of running waters usually varies seasonally, daily and in different locations due to climate, elevation, extent of streamside vegetation and relative importance of ground water inputs. The water in the present study was clear with low temperatures and high dissolved oxygen. The quality of water when analysed indicated that the values recorded for each parameter fell within the prescribed standard limits of IUCN [25]. Hence this river qualifies as a calm, undisturbed and unpolluted flowing system.

Kerala with its highly conducive climatic conditions provide scope for the development of culture practices for freshwater fishes that can be farmed in such water bodies.. This sector assumes special significance due to its huge potential in providing employment to the people hailing from the rural areas.

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# A COMPARATIVE ANALYSIS OF CUSTOMER SATISFACTION OF PRODUCTS AND SERVICES IN PUBLIC AND PRIVATE SECTOR BANKS - WITH SPECIAL REFERENCE TO SBI AND FEDERAL BANK

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### Abstract

The banking industry like many other financial service industries is facing a rapidly changing market, new technologies, economic uncertainties, fierce competition, and especially more demanding customers; and the changing climate has presented an unprecedented set of challenges. Customer service is one integral part of any facet of banking and it defines future of any banking organization. In banking sector, the whole range of activity and generation of income swivels around the customer. From a very comfortable and peaceful environment, now the Indian Banking Sector is characterized by stiff competition for the customer's satisfaction and profit war between different banking groups i.e. (Private Bank vs. Nationalized Bank). This paper tries to analyze the comparative analysis of customer satisfaction among these two categories of banks – public and private sector banks using the list of service attributes like assurance, reliability, responsiveness, physical facilities, empathy etc. This study is just a small step in understanding the multidimensional construct of service quality and its implications in today's competitive environment.

*Keywords:* Customer satisfaction, Assurance, Reliability, Responsiveness, Physical Facilities, Empathy, etc

### 1. Introduction

Banks play a very important role in the economic development of every modern state. Banks operate at the heart of the modern economy. Traditionally, banking had



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been restricted from private participation in India and public sector banks had been enjoying complete protection. This scenario has changed since 1990. The decade of 90s witnessed a sea change in the working of banking in India. Technology made tremendous impact by introducing "anywhere banking" and "anytime banking". The financial sector now operates in a more competitive environment than before and involves relatively large volume of international financial flows. In the wake of greater financial deregulation and global financial integration, the biggest challenge before the public sector banks is to match the market requirement rather than being promoted by Government or regulator. Foreign banks and the new private banks have embraced technology right from the inception of their operations and therefore, they have adapted themselves to the changes in the technology easily. Deregulation, liberalization and globalization have produced intense competition in banking industry resulting into declining margins in traditional businesses, increased cost pressures and greater risks. Market positioning, cost of intermediation and service delivery are likely to be determinants of the efficiency of banks with respect to their competitiveness. In the changed environment creating new customers and retaining the existing ones have become difficult tasks for banks. To meet the competition, creating satisfaction of customers has become primary objective of each bank.

### What Satisfies a Customer?

According to Juran, Deming and Crosby it's the quality of the product or service, that satisfies a customer. Quality is especially important in the banking sector because duplication of products and services is relatively easy. Further, differentiation of products is difficult in case of the banking sector. Thus, quality becomes the only differentiator and the key to continuing success. With increasing competition, banks that survive and succeed will be the one that provide quality service. Research studies have repeatedly proved that customers are willing to pay for quality service. Banks that wish to succeed and stay ahead must, therefore, systematically build a structure that aims at



providing Total Quality Service. As with the bank's financial goals, success can be achieved only with proper analysis and suitable goals.

## Service Quality and Customer Satisfaction:

There is a great deal of discussion and disagreement in the literature about the distinction between service quality and satisfaction. The service quality school view satisfaction as an antecedent of service quality - satisfaction with a number of individual transactions "decay" into an overall attitude towards service quality. The satisfaction school holds the opposite view that assessments of service quality lead to an overall attitude towards the service that they call satisfaction. There is obviously a strong link between customer satisfaction and customer retention. Customer's perception of Service and Quality of product will determine the success of the product or service in the market. If experience of the service greatly exceeds the expectations clients had of the service then satisfaction will be high, and vice versa. In the service quality literature, perceptions of service delivery are measured separately from customer expectations, and the gap between the two provides a measure of service quality.

## 2. Review of Literature

This section is devoted to making a review of those studies conducted in India A brief review of some of these studies has been made here.

**Ankit Singh (2009)** in his study "Customer Satisfaction Survey on Banks", made on customers of SBI, ICICI, HDFC, Andhra Bank and Bank of Baroda at Hyderabad found that ICICI bank is rated highest by the customers followed by SBI, HDFC, Bank of Baroda and at last Andhra Bank in terms of customer satisfaction on the attributes of bank viz initial experience, service delivery experience, service experience, relationship experience and grievance handling.

**Gayathri Balakrishnan**(2010) in her study, "Customer's awareness about the Banking Services: A study made on customers from five public sector banks and five private sector banks, found out the majority of the customers were aware of the services



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being offered by banks. Most of the customers of public sector and private sector banks came to know about the services from the print media and the audio visual media respectively. Customers of private sector banks outnumbered public sector banks regarding awareness about telebanking and e-banking. However the customers of both public and private sector banks were equally aware of the insurance products and mutual fund schemes offered by the bank. Further it was revealed that gender, educational qualification ,occupation ,annual income, type of account and year of operation have significant relation with awareness level of the various services offered by banks; unlike age and marital status that have no significant relation with the awareness level.

**Rao, K. Rama Mohana and Lakew, Tekeste Berhanu (2011)** examines the service quality perceptions of customers of public sector and private sector banks in the city of Visakhapatnam, India. The author reveals that the Reliability and Assurance dimensions of service quality scored the highest ratings while the Tangibles dimension got the lowest score. Moreover, the study found a strong dissimilarity in service quality perceptions between customers of private sector and public sector banks.

**Santhiyavalli, G. (2011)** determined the customer's perception of service quality of the select branches of State Bank of India and study the major factors responsible for their satisfaction. In this research SERQUAL Model has been used and study indicates that among five dimensions 'Reliability', 'Responsiveness', 'Empathy' and 'Tangibility' are the major factors responsible for customer satisfaction.

On the basis of the review of these studies, it can be deduced that there is a research gap in the area of customer satisfaction, particularly in private and public sector banks. Also, a comparative analysis of the perception of customers in public and private sector banks helps to identify the areas in which banks have to improve their performance.



### 3. Problem Identification, Need and Relevance of the Research

Banks are backbone for the economic development of any country. Since decades commercial banks had been providing a wide range of products and services to cater to the different needs of the public. The emergence of commercial banks had been a great relief for the people who were tortured by the local money lenders. Thus the healthy economic life of a country is closely connected with the banking system. After liberalization of the Indian economy, the banking has entered into a competitive phase. Today, bank customers are better informed, more sophisticated and discerning. They also have a wide choice to choose from various banks. Therefore, the factors that influence the behavior of customers are a matter of the great concern. Again, no empirical studies to the best of the knowledge of the researcher have been conducted to examine the customer satisfaction of SBI and Federal bank in Ernakulam. It is in this background that the present study has been undertaken.

### 4. Scope of the Study

The present study has been made to make a comparative study of the satisfactional level of customers who have availed products and services of SBI and Federal Bank in Ernakulam. The assessment will be made based on the perception of customers of the selected branches of State Bank of India and Federal Bank in Ernakulam. The study will be confined to individual customers who had deposits and or had availed loans.

### 5. Objectives of the Study

The study aims at the following objectives:

- 1 To study demographic profile of customers of State Bank of India and Federal Bank
- 2 To identify the products and services availed by customers of State Bank of India and Federal Bank
- 3 To determine the perception of customers regarding the products and services of State Bank of India and Federal Bank

### 6. Hypotheses

Based on the objectives the following hypotheses have been formulated

 $H_{01}$ : There is no difference in the satisfaction level among customers concerning the tangibles, reliability, responsiveness, assurance, empathy in federal Bank and SBI

### 7. Methodology

In the district of Ernakulam, there are 114 branches of SBI and 111 branches of Federal Bank. The customers of SBI and Federal Bank in Ernakulam District constitute the population for the study. The respondents of the study consists of customers of these banks. For selecting the sample customers, multi stage sampling framework was followed. In the first stage, the different branches of SBI and Federal Bank in Ernakulam were identified and two branches of SBI and two branches of Federal Bank were selected at random. In the second stage, the customers who have deposits and /or had availed loans were identified and 20 customers from each branch of SBI and Federal Bank who have availed such deposits and loans were selected at random. Thus total sample respondents have come to 80. Both primary and secondary data were used for the study. The primary data were collected from the sample customers using the structured questionnaire. The secondary data were collected from bank records, books, periodicals, reports and the internet. For data analysis, statistical tools such as weighted mean, percentage, Chi-square test and Kruskal Wallis test were applied.

### 8. Analysis and interpretation

### 8.1. Demographic profile of sample respondents

To analyze the five hypotheses, different demographic variables are considered. They are Gender, Age Group, Education and Occupation of the respondents.



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No		Frequency										
			SBI	Feder	al bank	Total						
	Gender	No	%	No	%	No	%					
1	Male	29	72.50	30	75.00	59	73.75					
2	Female	11	27.50	10	25.00	21	26.25					
	Total	40	100.00	40	100.00	80	100.00					
	Age											
1	<23	15	37.50	15	37.50	30	37.50					
2	24-30	11	27.50	10	25.00	21	26.25					
3	31-50	7	17.50	9	22.50	16	20.00					
3	>50	7	17.50	6	15.50	13	16.25					
	Total	40	100.00	40	100.00	80	100.00					
	Education											
1	Below SSLC	0	0.00	2	5.00	2	2.50					
2	SSLC	3	7.50	3	7.50	6	7.50					
3	Higher Secondary	6	15.00	8	20.00	14	17.50					
4	Graduate	16	40.00	4	10.00	20	25.00					
5	Post Graduate	11	27.50	17	42.50	28	35.00					
6	Professional	4	10.00	6	15.00	10	12.00					
	Total	40	100.00	40	100.00	80	100.00					
	Occupation											
1	Student	10	25.00	3	7.50	13	16.30					
2	Self employed	9	22.50	12	30.00	21	26.20					
3	Service	8	20.00	13	32.50	21	26.20					
4	Agriculture	1	2.50	0	0.00	1	1.20					
5	Professional	6	15.00	7	17.50	13	16.30					
6	Others	6	15.00	5	12.50	11	13.80					
	Total	40	100.00	40	100.00	80	100.00					
	Annual Income											
1	<100,000	15	37.50	14	35.00	29	36.3					
2	100001-500000	22	55.00	24	60.00	46	57.50					
3	500001-10,00,000	2	5.00	2	5.00	4	5.00					
4	>10,00,000	1	2.50	0	0.00	1	1.20					
	Total	40	100.00	40	100.00	80	100.00					

# Table 1: Demographic Profile

Source: Primary data



Out of the customers selected for the study (46.25%) belonged to the age group of 24-50 years, 73.75% are male. While 42.5% of the customers of federal bank are post graduates, 40.0% of the SBI are graduates Most of the selected customers (25.0%) of SBI are students while majority of Federal bank customers (32.5%) are occupied in service and 57.5% of the customers have annual income between Rs 100,001 to Rs 500,000.

# 8.2. Products Availed by Customers

Of the various products and services offered by banks, mainly 8 products are brought under the present study

Products	S	BI	Federa	l bank	Total		
	No	%	No	%*	No	%	
Deposit	37	92.50	35	87.5	72	90.00	
Loan	20	50.00	20	50.00	40	50.00	
ATM	36	90.00	33	82.50	69	86.30	
Internet Banking	10	25.00	7	17.50	17	21.30	
Credit/Debit card	21	52.50	12	30.00	33	41.00	
Locker Facility	5	12.50	9	22.50	14	17.50	
Insurance	0	0.00	2	5.00	2	2.50	
Tele Banking	7	17.50	5	12.50	12	15.00	

Source: Primary data \*Percentage calculated on total number of respondents

From the above table shows that the products availed from bank, 90.0% of the customers are found to have deposits while only 2.5% has taken insurance from bank. ATM facility is also found to be popular among customers. Compared to Federal Bank, the customers of SBI are more internet facility, credit /debit card and tele banking. However, locker and insurance are found to be used by more of customers of Federal bank than SBI.

### 8.3. Perception of Customers

## 8.3.1. Tangibles:

Here tangibles means physical facilities, equipment and appearance of personnel. For studying the customers satisfaction with respect to tangibles, seven variables viz location, physical facilities, bank employees, modern equipment, seating facilities and brochure and other materials have been identified. The result of analysis are depicted below

Tangibles	Stroi Agi		Ag	ree	Disa	gree	Stror Disag		No Op	inion	Results		
_	SBI	FB	SBI	FB	SBI	FB	SBI	FB	SBI	FB			
											$X^2 = 5.787$ with 2		
Location	21	27	14	13	5	0	0	0	0	0	df;not significant		
											at 5 percent level		
											$X^2 = 1.850$ with 3		
Physical facilities	12	12	23	26	4	2	0	0	1	0	df;not significant		
											at 5 percent level		
Appropriateness of													$X^2 = 4.936$ with 3
physical facilities	8	11	24	27	5	2	0	0	3	0	df;not significant		
physical facilities											at 5 percent level		
Appearance of bank's											$X^2 = 18.087$ with		
employees	2	13	24	25	6	2	0	0	8	0	3 df;significant at		
employees											5 percent level		
Use of Modern											$X^2 = 0.25$ with 1		
equipment	20	20	20	20	0	0	0	0	0	0	df;not significant		
equipment											at 5 percent level		
											$X^2 = 10.205$ with		
Seating facilities	11	15	16	23	10	2	0	0	3	0	3 df; significant		
											at 5 percent level		
Understandability of											$X^2 = 8.859$ with 3		
the Brochures	7	17	29	23	2	0	0	0	2	0	df; significant at		
the brochules											5 percent level		
Total	81	115	150	157	32	8	0	0	17		0		
Percentage	28.9	41.1	53.6	56.1	11.4	2.9	0.0	0.0	6.1		0.0		

Table 3: Satisfaction level with respect to Tangibility

# Source: Primary Data

### Kruskal Wallis test=0.317

From the above table shows that the satisfaction level of customers of SBI and FB with respect to the seven elements of tangibles. While 41.1 % of the federal bank customers are highly satisfied with the tangibles of the bank, only 28.9% of the SBI



customers are highly satisfied with it.53.6% and 56.1% of the customers of SBI and Federal Bank respectively are also satisfied with the tangibles of the bank. But 11.4% of SBI customers and 2.9% of Federal Bank customers are dissatisfied with it.6.1% of SBI customers are found to have no opinion in this regard. However the Kruskal Wallis test finds no significant difference of opinion among respondents in both the bank (p=0.317, which is >.05) hence the null hypothesis stating that there is no difference in the level of satisfaction among customers concerning the tangibles in federal bank and SBI stands accepted.

# 8.3.2. Reliability

Here reliability means ability to perform the promised service dependably and accurately. For studying the consumer satisfaction with respect to reliability, six variables viz dependability accuracy of records, secrecy, and reasonability of charges, promise and faith are used. The result of analysis are depicted below:

Reliability	Stro Ag		Ag	ree	Disa	gree	Strongly Disagree				No Opinio		Results
	SBI	FB	SBI	FB	SBI	FB	SBI	FB	SBI	FB			
Dependability	14	17	26	23	0	0	0	0	0	0	X <sup>2</sup> =0.474 with 1 df;not significant at 5 percent level ( <b>Accept Ho</b> )		
Accuracy of accounts	20	15	20	25	0	0	0	0	0	0	X <sup>2</sup> =1.270 with 1 df;not significant at 5 percent level		
Secrecy	26	22	14	16	0	2	0	0	0	0	X <sup>2</sup> =2.467 with 1 df;not significant at 5 percent level		
Reasonability of charges	7	11	17	22	13	7	2	0	1	0	X <sup>2</sup> =6.330 with 4 df;not significant at 5 percent level		
Punctuality	8	15	21	23	5	2	3	0	3	0	X <sup>2</sup> =9.507 with 4 df; significant at 5 percent level		
Faith in Banks Products and Service	10	9	27	27	3	4	0	0	0	0	$X^2$ =0.195 with 2 df; not significant at 5 percent level		
Total	85	89	125	136	21	15	5	0	4		0		
Percentage	35.4	37.1	52.1	56.7	8.8	6.3	2.1	0.0	1.7		0.0		

Table 4: Satisfaction level with respect to reliability

Source: Primary data, Kruskal Wallis test=0.317



From the above table shows that the satisfaction level of customers of SBI and FB with respect to the five elements of reliability. While 37.1% of the Federal bank customers are highly satisfied with the reliability of the bank.35.4% of the SBI customers are highly satisfied with it.52.1% and 56.7% of the customers of SBI and Federal Bank respectively are also satisfied with the reliability of the bank. But 8.8% of SBI customers and 6.3% of Federal Bank customers are satisfied are dissatisfied with it.2.1% of the customers of SBI are highly dissatisfied with it.1.7% of SBI customers are found to have no opinion in this regard. However, the Kruskal Wallis test finds no significant difference of opinion among the respondents in both the banks (p=0.317,which is>.05)and hence the null hypothesis stating that there is no difference in the level of satisfaction among customers concerning the reliability in Federal Bank and SBI stand accepted.

### 8.3.3. Responsiveness

Responsiveness here means willingness to help customers and provide prompt service. For studying the customer satisfaction with respect to responsiveness ,seven variables viz .attitude of employees, need for recommendation ,time in queues ,promptness in service, willingness to help ,readiness to respond and grievance redressal have been identified. The results of analysis are shown below:



Responsiveness		ngly ree	Ag	ree	Disa	gree	Stro Disa		N Opir		Results				
-	SBI	FB	SBI	FB	SBI	FB	SBI	FB	SBI	FB					
											$X^2 = 6.944$				
											with 4 df;not				
Attitude of	10	13	14	18	10	9	3	0	3	0	significant at				
Employees	10	13	14	10	10		5	0	5	0	5 percent				
											level (Accept				
											Ho)				
											$X^2 = 11.689$				
	_							-			with 4 df;				
Recommendation	5	13	26	13	8	12	0	2	1	0	significant at				
											5 percent				
											level				
											$X^2 = 6.476$				
Waiting in	0	7	10	25	0	7	2	1	2	0	with 4 df;not				
Queues	9	7	16	25	9	7	3	1	3	0	significant at				
											5 percent				
											$\frac{\text{level}}{X^2 = 9.030}$				
											X = 9.030 with 3 df				
Promptness in	3	8	22	28	11	4	3	0	0	0					
Service	5	0	23	28	11	4	3	0	0	0	significant at 5 percent				
											level				
											$X^2 = 6.984$				
													with 3 df; not		
Willingness to	7	7	20	22	7	11	6	0	0	0	significant at				
help	/	/	/	7	7	,	20	22	/	11	0	U	0	U	5 percent
											level				
											$X^2 = 8.314$				
											with 4 df; not				
Readiness to	6	9	11	19	19	12	3	0	1	0	significant at				
respond	-		_		-		-	-		-	5 percent				
											level				
											X <sup>2</sup> =5.544				
Criterent											with 4 df; not				
Grievance	5	13	18	17	16	9	0	0	1	1	significant at				
Redressal											5 percent				
											level				
Total	45	70	128	142	80	64	18	3	9		1				
Percentage	16.1	25.0	45.7	50.7	28.6	22.9	6.4	1.1	3.2		0.4				

# Table 5: Satisfaction level with respect to Responsiveness

Source: Primary data, Kruskal Wallis test=0.317



From the above tables shows that the satisfaction level of customers of SBI and FB with respect to the seven elements of responsiveness. While 25.0% of the Federal Bank customers are highly satisfied with the responsiveness of the bank,16.1% SBI customers are highly satisfied with it.45.7% and 50.7% of the customers of SBI and Federal Bank respectively are also satisfied with the responsiveness of the bank. But 28.6% of SBI customers and 22.9% of Federal Bank customers are dissatisfied with it. However the Kurskal Wallis test finds so significance difference of opinion among respondents in both the banks(p=0.317,which is>.05)and hence the null hypothesis stating that there is no difference in the level of satisfaction among customers concerning the responsiveness in Federal Bank vis SBI stands accepted

### 8.3.4. Assurance

Assurance here means Knowledge and courtesy of employees and credibility of security systems. For studying the customer satisfaction with respect to assurance, five variables viz confidence in banks employees, safety, politeness of bank employees, knowledge and security systems are identified. The result of the analysis are depicted below:

Assurance	Strongly Agree		Ag	Agree		Disagree		Strongly Disagree		o nion	Results	
	SBI	FB	SBI	FB	SBI	FB	SBI	FB	SBI	FB		
Confidence in bank's Employees	7	15	27	18	5	7	1	0	0	0	X <sup>2</sup> =6.042 with 3 df;not significant at 5 percent level (Accept Ho)	
Trust in Banks Employees	7	15	32	23	0	2	1	0	0	0	$X^2$ =7.382 with 3 df;not significant at 5 percent level	
Politeness of Bank Employees	1	11	20	25	17	4	1	0	1	0	X <sup>2</sup> =18.937 with 4 df; significant at 5 percent level	
Knowledge of Bank Employees	6	15	30	19	0	4	2	2	2	0	X <sup>2</sup> =10.993 with 4 df; significant at 5 percent level	
Security Systems	20	20	18	18	1	2	0	0	1	0	X <sup>2</sup> =1.333 with 3 df; significant at 5 percent level	
Total	41	76	127	103	23	19	5	2	4	0		
Percentage	20.5	38.0	63.5	51.5	11.5	9.5	2.5	1.0	2.0	0.0		
Source: Primar	rv dat	a. Kri	uskai	l Wal	llis te	est=0	.317					

**Table 6: Satisfaction level with respect to Assurance** 

aata. Kruskat wattis test



From the above table shows that satisfaction level of customers of SBI and FB with respect to the five elements of assurance.While 38.0% of the federal bank customers are highly satisfied with the assurance of the bank,20.5% of the SBI customers are highly satisfied with it.63.5% and 51.5% of the customers of SBI and Federal Bank respectively are also satisfied with the assurance of bank.But 11.5% of SBI customers and 9.5% of Federal Bank customers are dissatisfied with it.However the Kurskal Wallis test finds so significance difference of opinion among respondents in both the banks(p=0.317,which is>.05)and hence the null hypothesis stating that there is no difference in the level of satisfaction among customers concerning the assurance in Federal Bank vis SBI stands accepted

### 8.3.5. Empathy

Empathy here means caring and individualized attention that the firm provides to its customers. For studying the customer satisfaction with respect to empathy, seven variables viz personal attention, understanding needs, best interest towards customers operating hours, problem solving and advising are used. The results of analysis are depicted below:

Empathy	Strongly Agree		Agree		Disagree		Strongly Disagree		No Opinion		Results	
	SBI	FB	SBI	FB	SBI	FB	SBI	FB	SBI	FB		
Personal Attention	5	4	21	26	9	10	4	0	1	0	X <sup>2</sup> =5.696 with 4 df;not significant at 5 percent level (Accept Ho)	
Understanding customer needs	5	8	22	20	8	11	4	0	1	1	$X^2$ =5.261 with 4 df;not significant at 5 percent level	
Best interest towards customers	4	9	22	20	7	11	1	0	6	0	X <sup>2</sup> =9.907 with 4 df; significant at 5 percent level	
Operating Hours	6	18	29	18	4	4	0	0	1	0	$X^2$ =6.494 with 3 df; not significant at 5 percent level	
Problem Solving	5	11	16	20	13	7	0	0	6	2	$X^2$ =12.487 with 4 df; significant at 5 percent level	
Assistance in Solving queries	7	12	16	24	10	4	1	0	6	0	$X^2$ =11.138 with 4 df; significant at 5 percent level	
Guidance	7	19	13	13	11	4	1	0	8	4		
Total	39	81	139	141	62	51	11	0	29		7	
Percentage	13.9	28.9	49.6	50.4	22.1	18.2	3.9	0.0	10.4		2.5	
Source: Primary dat Kruskal Wallis test-0 317												

Table 7: Satisfaction level	el with	respect to	Empathy
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Source: Primary dat, Kruskal Wallis test=0.317



From the above table shows that satisfaction level of customers of SBI and FB with respect to the seven elements of empathy.While 28.9% of the federal bank customers are highly satisfied with the empathy of the bank,only 13.9% of the SBI customers are highly satisfied with it.49.6% and 50.4% of the customers of SBI and Federal Bank respectively are also satisfied with the empathy of bank.But 22.1% of SBI customers and 18.2% of Federal Bank customers are dissatisfied with it.10.4% of SBI customers and 2.5% of Federal Bank customers are found to have no opinion in this regard.However the Kurskal Wallis test finds so significance difference of opinion among respondents in both the banks(p=0.317,which is>.05)and hence the null hypothesis stating that there is no difference in the level of satisfaction among customers concerning the empathy in Federal Bank vis SBI stands accepted

Attributes	Weighted Mean	Rank	
Tangibles	3.46	5	
Reliability	3.39	4	
Responsiveness	3.10	3	
Assurance	2.91	2	
Empathy	2.08	1	

 Table 8: Preference for attributes for customers

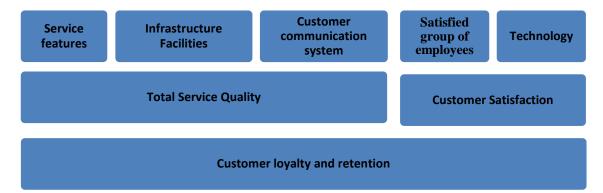
### Source: Primary data

Table shows the ranks assigned to the five attributes of the bank under study by customers on the basis of weighted mean. Accordingly, empathy, assurance, responsiveness, reliability, and tangibles are ranked 1,2,3,4,5 respectively. Thus, empathy is found to be the most prioritized attribute and tangibles is found to be the least priorized attribute of a bank by the customers

On the basis of the results and findings of the study constructed a service quality model for banks. Banks can attain a high total quality of service by adopting this model



# 9. Model Showing Total Service Quality for Banks



### Figure 1: Model Showing Total Service Quality for Banks

There are number of elements or contributors to the total quality of services of banks. They are grouped into five broad heads viz., Service features, Customer communication system, satisfied group of employees, Infrastructure facilities and technology.

## A brief explanation about this:-

### a) Service Features

One of the major element or factor that influences the service quality is **the features of product.** The features includes **cost, procedures need to access it, use of service etc**. These features must satisfy the needs and wants of targeted customers. So banks must conduct surveys or other similar activities to know the requirements of targeted customers and design services or product in tune with requirements of customers.

### b) Customer Communication System

It is the system that works to make aware of and educate the customers about the features of product or service. how it can be accessed and used etc. It also helps banks to create a good relation with their customers. Through this system banks will get feedbacks from customers about quality and other features of services.

### c) Satisfied employees

The satisfied group of employees will lead to smooth delivery of services, that is, it will increase responsiveness, promptness, courtesy etc of employees.

### d) Infrastructure facilities

If there is enough customer space, convenient arrangement of premises etc should contribute to the total service quality.

### e) Technology

In this competitive banking service market technology is considered as one of the product or service differentiator from the competitors' products or services. So use of up-to-date technology should increase service quality of banks.

### f) Total service quality

Total service quality is the sum total of service design quality, customer communication system quality, employees quality, infrastructure quality and technology quality. Banks should take steps to maximize the quality of each element, through which they can attain maximum service quality.

### g) Customer satisfaction

Then a bank provides services with a quality that is equal to the expectation of customers, then it can be said that those customers are in a state of satisfaction. If the bank can provide a quality more than customer expectation then customers will be delighted or they are in a state of high satisfaction. If the quality is not reached to the customer expectation, then customer is in a dissatisfied state.

### h) Customer loyalty and retention

When customers are satisfied with the quality of service provided by their bank, they may repeat purchase of the same product or purchase another product of the bank. Then such customers are called loyal customers. Customer loyalty is very important in a



competitive and dynamic environment like banking services environment. Once the customer shows his loyalty his retention is comparatively easy for bank. For retaining customers banks must keep in touch with their customers frequently and it is very important for the success of banking business.

## **10.** Suggestions

The foregoing discussions revealed the gap between public sector banks and new private sector banks on service quality as perceived by customers. It also revealed the weak points where both public sector banks and new private sector banks need to pay their serious and immediate attention. Service delivery and customer delight is probably one of the most debatable issues gripping the banking industry in our country. So, in order to fill these gaps, certain suggestions are hereby put forwarded which will be useful to both public sector banks and new private sector banks

- Both public sector and private sector banks should take steps for specialised training of employees. The training program should focus on the factors that improve the responsiveness, promptness, courtesy etc., of employees. So that banks can increase their responsiveness and assurance quality. It will lead to increased efficiency and productivity of employees.
- Banks should take steps to provide more personalized services means, pay individual attention to customer's needs and wants, by which they can increase perceived quality on empathy dimension. It also provides better satisfaction and retention of customers.
- Take steps to educate and make their customers or make them aware about the value added services like internet banking, mobile banking etc., methods of using these services. It is essential for the successful and effective implementation of these types of services. Also, if these services are used regularly by customers banks can reduce their cost considerably.



- Both public sector banks and private sector banks should conduct customer awareness programmes to make the customers well aware of the service and products, by which banks can interact with their customers and build a good relationship with them.
- Both categories of banks should take steps to minimise the procedures and formalities that are to be fulfilled by customers while providing a product or service. This will help them to increase service reliability.
- Use up-to-date technology and create a highly motivated group of employees to deliver services to customers. It will increase the promptness, timeliness and regularity of services. The end result of these will be the increased reliability quality.
- The introduction of customers service committees in all branches.
- Ensuring the availability of officials for meeting customers on a prescribed day every month for handling customer complaints.

## 11. Conclusion

Maintaining good relation with the customer is essential in the present competitive environment prevailing in the banking services market of Kerala. The success of the banking business depends upon the aspect understand the customer. So bank need to build a relationship with their customers by offer better quality services than others can provide. This will lead to customer satisfaction and increased customer loyalty and retention. The focus of banking business tomorrow will have to be customer oriented. The role of human resources is found significant since customers are found more sensitive to the impolite behaviours of bankers. "Give service" has been the morale for the banking industry for decades past and it is applicable today and it will be a key success in the decades to come.

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### EMPOWERMENT AND/OR ENSLAVEMENT: ENGLISH AND EARLY MALAYALAM FICTION P.K. Sreekumar\*, Priva Jose K.

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## Abstract

The present paper invites attention to the constant recurrence of the term 'English'-both as a language and as an idea- in four inchoate Malayalam novels (about contemporary society) published during the decades around 1900: *Saraswathi Vijayam*(1892), *Lakshmikesavam* (1892), *Sukumari*(1897), and *Parishkaravijayam* (1906). Unlike in Europe, the genre of novel, though largely a colonial literary form, became in Malayalam the most powerful literary tool for the emerging middle classes and the common masses to destabilize hegemonic discourses as evidenced from the social and communal affiliations of the authors and novels.

Keywords : Saraswathi Vijayam, Lakshmikesavam, Sukumari, Parishkaravijayam

### 1. Introduction

It is to be specially noted that the novels under consideration are multivocal and textured, covering a staggering spectrum of strata and subcultures. The trait is all the more notable in the case of novels from the denatured social sphere of Malabar, the original epicenter of Kerala modernity. Exposed quite early to overseas trade, habited by an international population of different hues and faiths, plowed on by Tippu's invasion and administrative reforms, it also witnessed the first modern European foothold of mercantilism in the fifteenth century. The first and second Malayalam newspapers were published from there. It was there that the land was systematically surveyed and taxes levied for the first time. The same place witnessed feudalism develop its first cracks. Roads and railways added to the momentum. Revitalization movements of Ayurveda enunciated the vision of a unified Kerala for the first time,



much before Congress came up with the demand (Panikkar 179). Nationalist aspirations, political movement, a progressive public sphere, hospitals, printing press, aggressive missionary activities, emergence of an enlightened middleclass, anti-caste movements, direct colonial interventions, etc., redefined the political map and recast the social sensibility of the region. No wonder there are overt and covert references to Tippu's invasion, train, new roads, census, Nair Marriage Bill, feudalism, slavery and slave trade, colonial ethnography, Christian factional feuds, to mention a few, in these novels.

SaraswathiVijayam (1892), written by the activist-advocate PothriKunhambu, describes the miserable life of Pulayas in Malabar. It advocates a rupture with the ossified paradigms and champions English education as an emancipatory agent. The novel describes how a pulaya youth, fleeing certain persecution, climbs the social ladder through English education and by apostasy. The proclivity to English, which is openly expressed in *Indulekha* and *Lakshmikesavam*, finds a more subtle and but stronger expression here. To borrow the words of Dileep M. Menon, the novel: celebrates English education for untouchables as a means of escaping subordination. He is only too conscious of the radical possibilities opened up for the subordinated castes by colonial modernity. Throughout the novel there is at once an agonized engagement with Hindu tradition as well as the overwhelming recognition of the futility of a constructive dialogue with it. Tradition subordinates, modernity frees" (112).

The position of the author on religion and conversion is a tricky problem. DileepMenon opines that the novel is a testament to:

Kunhambu's own struggle with Hinduism and the classical canon. Tradition, more specifically Hindu tradition, does not allow Kunhambu an easy habitation despite his mastery of it. *Saraswativijayam* represents for Kunhambu the limit of his engagement with tradition, the point beyond which any creative reworking of Hinduism becomes impossible. (129)

#### Volume 4(2), September 2017



# JOURNAL of dbct

This decisional dilemma is apparent in Kuberan Namboothiri who is portrayed as immensely rich, scholarly in Sanskrit scriptures, miserly and considers pulayas as subhuman, a mere movable commodity. He denigrates his own sudra acolytes. However the novelist carefully suggests that he is not inherently evil but is conditioned due to enveloping social structures and circumstances (58, 68-69). We see constant wanderings to evade law change his acquired mindset. It needs to be noted that Brahmins had a lot of movement restrictions and it is their violations that redeem him. He boards a train, mixes with a lot of people and experiences an enlightenment of sorts. That is, he indulges in a lot of 'sins' and paradoxically get purified in the process in a social space created by and saturated with symbols and systems of colonial modernity. In short, every character in the novel grudgingly or willingly imbibes a radically new worldview which is more of less identified with English. Tellingly they do not become hollow Anglophiles, but actually transgress supposedly inviolate normative discourses and transcend age-old restrictions.

*Lakshmikesavam* (1892), the first novel in the former princely state of Kochi, was authored by K. Padoo Menon. Understandably, many themes in *Indulekha* and *Saraswathivijayam* find expression here. In addition there are glances, however fleeting, of the rapidly changing social scenario which permits assertion of subaltern identity. Such scenes capture the systemic changes leading to the deterioration and eventual disappearance of the uncontrolled and arbitrary power wielded by such landlords before the British rule. There are graphic descriptions of Madras (138—40) which appears to be the concrete articulation of colonial civilization and advancement, a living demonstration of what colonial modernity can achieve. Extolling the British intelligence and competence, Lakshmi, the heroine of the novel, remarks:

No words are excessive to describe the intelligence of the British. Did not you see the railway and postal service yourself? We would not have believed in their existence had we not witnessed them firsthand. (142)

#### Volume 4(2), September 2017



### JOURNAL of dbct

Revolutionary ideas like man-woman equality and the right of women to choose their husbands, as in *Indulekha*, are echoed here too. In a discussion between Adv. Kanmaran Nair (Lakshmi's father) and Kesavanunni Nair (her future husband) there are progressive ideas in this regard (144). Notably, one qualification of Lakshmi in the eyes of Kesavanunni in marrying her is her command of English (151). Lakshmi, with a view to averting a forced marriage with the lord who is thrice her age, leaves her house with her maid Meenakshi. In the ensuing conversation between her uncle Chathar Menon and a Brahmin, English is accused of corrupting women and precipitating the present crisis (178). Menon, of course, tries to defend English and modern education as best as he could. Here we have to note an important thing: the vehement criticism of the Brahmin indirectly concedes that English has the ability to cultivate qualities such as confidence, courage and independence.

*Sukumari* (1897), a novel with an intricate plot, by Joseph Mooliyil was written with the express intention of describing and propagating the activities of Basal Mission in north Malabar. Predictably, the call for conversion is neither subtle nor subdued here. The novel claims that the Mission has completely demolished caste in the congregation. Matha, even though sullied by the fact of her son's apostasy, says: "These people have no caste. They are all equal. And they enroll people from every caste to join them. Pattar, Nair, Tiyyan and Cheruman, once they immerse themselves in that ocean, become alike." (277). Interestingly, *Saraswativijayam*, written five years ago, comes up with an identical description of the new Basal Christian community (80).

English, however, figures as an ambiguous entity in the novel. For example, Satyadasan, who can be called the protagonist of the piece, views English as a tool to achieve upward social mobility (303—04) with no intrinsic value; he is acutely aware of how the British exploit indigenous resources and create exploitative consumption patterns in the local population to swell the imperial coffers (308). The novel also ridicules the pervasive practice of aping the English—that is the habit of not



assimilating the broader values that English should have bestowed upon its learners as in Madhavan and Indulekha.

Parishkaravijayam (1906) has as its backdrop the internal conflicts of the Latin Catholic community in negotiating the advent of modernity in Kochi. Nothing conclusive is known about its author VaryathChori Peter. English is a leitmotif in Parishkaravijayam, both as a pragmatic tool and as the embodiment of a new worldview capable of purging the community of superstitions which have crept into it over a period of time by ignorance and intimate cultural contacts with other peoples. It was thanks to a fortuitous English education that Mathu (Mathew), the central figure of the novel, gains reformist insights, broadens his outlook, lands a good job and leads a comfortable life. This, however, does not induce complacency in him; nor does it alienate him from the less educated members of the community. Mathu holds that progress cannot be equated to any specific caste or creed, but is a matter mindset, an attitudinal change: it is the willingness to imbibe desirable qualities in others, get rid of irrational customs, drop expensive rituals, assimilate contemporary geist and to keep abreast of scientific/technological breakthroughs (35). English is eulogized as the single most decisive factor in edifying youngsters, emboldening them to critique prevailing norms, enabling them to question embedded beliefs and helping them secure gainful employment. Mathu is also alive to the rapidly shifting social equations and economic structures and wants the community to adapt itself to the changes: they need to acquire skills, should be willing to migrate if necessary, have to aggressively pursue trade and agriculture, etc., failing which, it is bound to decimate them and reduce them into an intellectually stunted populace. (44–45)

He reiterates the crucial strategic importance of education and laments how the community lags behind in the pursuit, at a time when others, most of them on newly drawn communal lines, were moving earth and heaven to get modern—that is to say English—education. And the Latin community's reluctance is all the more condemnable because the British are strong preachers and practitioners of meritocracy, without



attaching any importance to caste, creed and complexion (46). It is debatable whether the colonial authorities were really so, but the point is the Mathu/author, and by extension many of the disadvantaged social groups, thought so. To drive out the apathy and ennui that Mathu perceives in his coreligionists, he cites the examples of high caste Hindus who have shelved the ancient proscription against sea voyage and went to English for higher studies and now serving as doctors, engineers and barristers. So have done the Ezhavas, Muslims and Nairs (48). He also criticizes the largely cold reception that the Latin community has accorded to English education offered by Protestant missionaries through their schools and colleges in Kottayam and thereabouts, and hopes one day Catholics will embark on education and will produce a better informed Christian populace (48-49).

#### 2. Themes and motifs

From the aforesaid works one may say with a fair degree of confidence and accuracy that they conceive English not as a medium of communication but as the concrete and tangible articulation of a powerful, desirable, superior and emancipatory worldview. It is an engine of creativity and reconceptualization. Of course the colonial rulers never had noble intentions of enlightenment and empowerment when they decided to introduce English in their territories. For them English was an instrument "to create a willing and culturally servile administrators, clerks and other civil servants (the middle classes) who could skillfully and professionally administer the country" (Ganguly-Scrase and Scrase 132). Even while supplying the paraphernalia of progress, it would constantly remind the conquered people of their inferior standing. It, as Alastair Pennycook comments, ". . . is both the language that will apparently bestow civilization, knowledge and wealth on people and at the same time is the language in which they are racially defined." (4)

But at least for certain social spaces and agents, whose perceptions we have gleaned from these novels, it turned out to be a way to wriggle out of the stranglehold of caste and congealed customs. In fact most social reformers and thinkers of the day were

### Volume 4(2), September 2017



willing to introspect and critique their own traditions and practices in relation to European ways, Christianity, English and modern science. For example this is how Raja Ram Mohan Roy unabashedly eulogized western science and technology:

While we look forward with pleasing hope to the dawn of knowledge, thus promised to the rising generation, our hearts were filled with mingled feelings of delight and gratitude, we offered up thanks to providence for inspiring the most generous and enlightened nations of the West with the glorious ambition of planting in Asia the arts and science of Modern Europe. (Panikkar 169)

Equally interesting was the predicament that Indian intelligentsia felt in being torn between tradition and modernity expressed through the confrontation between indigenous belief systems and an aggressive Protestant Christianity. M.N. Srinivas comments in this context thus:

The appreciation of missionary work often led Indians to be very critical of their own society. The continuous perception of the contrast between themselves and their rulers produced a feeling of inferiority among many educated Indians, a feeling which took a variety expressions and postures from self-debasement to bitter denunciation of everything Western. Xenophobia, paleocentricism and communism, and the extreme idealization of Indian life and culture coupled with crude caricaturing of Western life and culture, were among the varied reactions of educated Indians to the West, and the same individual often shifted from one posture to another. (80)

There were many factors which endeared the British to the common man and incurred the wrath of the former elites, now having a tough time getting attuned to the changed times. One such move was the British attitude vis-à-vis slavery. Though English had been a prominent player in slave trade, by the nineteenth century there was a volte face in its policy. To cut a long story short, English became the main driving force of anti-slavery movements (Ferguson 114—22). *The Crime of Congo* by Sir Arthur Conan Doyle (1909) merits mention in this context. Adrian Desmond and James

#### Volume 4(2), September 2017



### JOURNAL of dbct

Moore in *Darwin's Sacred Cause: Race, Slavery and the Quest for Human Origins* argue that his theory of evolution was partly motivated by a burning desire to end the atrocities perpetrated in the name of differential 'races' in his time. There is no questioning that the *Origin of Species* (1859) heavily impacted on popular imagination and public opinion regarding the spurious concept of race in vogue in Europe and America. The British, often under the pressure of zealous Protestant missionaries (Alosysious 36, 108-09) had initiated legislation to stop sati, slavery, etc., in India.

### 3. Ideational Undercurrents

English versus Sanskrit: Throughout most of the novels, there is an overt antagonism towards Sanskrit, which is most often presented as retrograde and anachronistic. As in many other novels, Sanskrit is presented as the big Other of English in Saraswathi Vijayam. It is by copiously quoting Sanskrit verses that Kuberan Namboorthiri legitimizes his relative superior position in the social hierarchy, maintains his hegemonic subjectivity and justifies his wicked deeds (60,66). He is blissfully ignorant of the contemporary social upheavals and the tides of colonial modernity. He does not try to break free of the episteme wrought by Sanskrit and is incapable of assimilating new ideas and ideals. This is hardly surprising as the medium to access the new views—English— is alien to him. On the other hand Marathan, a pulaya youth allegedly murdered by a henchman of Kadambaran Namboothiri, escalates the social ladder through the twin processes of English education and conversion to Christianity. Intriguingly, Namboothiri's daughter, who is ostracized from the Brahmin community on fabricated charges of adultery, also embraces Christianity and her daughter is married to the same Marathan, rechristened Yesudasan, literally the servant of Jesus. Parishkaravijayam also contains broadsides against Sanskrit, but within a pedagogical framework. It criticizes the practice of making pupils learn Sanskrit conjugations and inflections by rote, rendering them unable to read anything anew or cannot come up with their own sentences. On the contrary, Mathu claims, English education instills in



the learner the ability to generate original sentences through carefully planned gradational books. (65)

Brahmins: Another deep undercurrent pertains to the portrayal of Brahmins who are shown as profligate, philistines, hedonistic, womanizers, gluttons or money lenders. Generally speaking the Kerala Brahmins or Namboothiris are presented as ignorant, arrogant and incompetent, but not innately crooked. Contrastingly, there is a Tamil Brahmin named Ventika in *Parishkaravijayam*. He is a moneylender with a fair degree of understanding and humanness, and a prominent character of the novel is substantially indented to him. The point, however, is his keen awareness of modern education. His elder son is an attorney in Madras and the second son in a Munsif in Thoothukkudi. The third son is an overseer in the department of engineering and the youngest son is doing F.A. in Madras. His first daughter is married to a rich feudal lord in Palakkad and the second is the wife of a police inspector (135). Not only is he fully conscious of the need for education, but also realizes that Latin Catholics are lukewarm in the education of their children (135). Interestingly he also echoes Mathu's view that the British are caste blind and place utmost premium on merit. (136). Saraswativijayam contains a character named Kuppu Pattar, an unscrupulous cloth merchant, who ensure the sale of his wares by hook or by crook (57). He is acutely aware of the legal mechanisms and intervenes on behalf of Kuberan Namboothiri and becomes his confidant. We have to remember that these novels came out immediately before and after the historic Malayalai Memorial in 1891 which in effect was an all-out attack against the privileged layer of non-Malayali Brahmans.

The Ascending Nair: In most novels of this age, Nairs as a whole are educated and receptive to changes, unlike the stubborn Brahmans. *Lakshmikesavam* clearly illustrates this. We have to remember that all the novels succeed *Prachina Malayalam* by Chattambi Swamikal in which he argued that Kerala had originally belonged to the Nairs and it was imperative to drive the usurping Brahmins from here. We are not trying



to say that the Nair authors were advocating revivalism but definitely they had shaken off the intellectual and ideational torpor by the time under reference.

**Constant and Eventual Travels**: All the novels contain detailed descriptions of travelling far and wide, out of volition but mostly under compulsion. It is through his wanderings as a fugitive that Kuberan Namboothiri undergoes mental transformation. *Lakshmikesavam* oscillates between two narrative spaces: the village saturated by restrictive practices and the metropolis (Madras) as the actualization of merit and opportunities that the empire has spawned. *Sukumari* is also full of journeys. The hero and the heroine face traumatic spatial displacements which ultimately purify, refine and toughen them. In comparison *Parishkaravijayam* contains fewer travels but still there are frequent trips between houses and places, all of which cause a certain degree of conflict and later reconciliation.

It is thus clear that these works treat English as the byword of progress, an antidote to the fatal diseases which had fatally afflicted the social body. And true to the nature of medicine, English in not intended to replace existing cultural habits, literary sensibility and cognitive matrices, but to act as a corrective force, a platform for critical self-evaluation and introspection. As already mentioned, this was not a phenomenon confined to literature. To conclude we summarize our arguments as follows. One: English figures in all of them in varying degrees and dimensions as a potential agent of emancipation and enlightenment. Two: Invariably they place Sanskrit as the antithesis of English, the great Other. Three: Namboothris are represented as benighted laggards whereas Tamil Brahmins are depicted as abdominally cunning and eminently practical. Four: In contradistinction, Nairs appear as the champions of progress, torchbearers of enlightenment and mediators of the concomitant sociopolitical awakening, amply supported and imitated by aspiring Christians and emerging Ezhavas. Five: Spatial displacement to evade punishment or necessitated by ostracism is a key experience in removing entrenched interdictions.

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# NATURE AND SIGNIFICANCE OF THE TERM "UPASANA" IN INDIAN PHILOSOPHY

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### Abstract

The search of Supreme Soul is known as Upasana. The word is derived from two Sanskrit roots – 'upa' and 'asana'. Upasana methods are various from every system of philosophies. Besides, all systems of philosophies agree the major three divisions of Vedic knowledge – Karma, Upasana and Jnana. Among them Upasana does not have a common method to be followed for all systems of philosophy. It can be followed only by the instruction of a teacher, he who has the knowledge about the particular system. Upasana is divided into two types – Sagunabrahmopasana and Nirgunabrahmopasna. The concept of Sagunabrahmopasana is based upon the Baktimarga. The Sagunabrahmopasana has various methods for each and every yuga. The functions of Jiva first transferred into vitality then to the mind, the intelligent, and selfconsciousness. The barrier to overcome the vitality is the trigunas or three qualities. Jnanamarga says that jnana is the only way to attain the Supreme goal. The methods can be various but the goal is same.

**Keywords:** Karmakanda, Jnanakanda, Upasanakanda, Bakthimarga, Trigunas, Sreyomarga, Preyomarga

### 1. Introduction

The aim of the human life is to satisfy the identification with the Supreme Soul. The Supreme Soul is beyond description and stays in all beings. He is complete and being body is his home. He stays in every human being as a jewel. But the beings search him everywhere outside that is perishable and made by human beings. One who is not



reaches him who stays within him just because of unawareness about the nature of supreme soul. The place can be reached by one, only through a well-trained teacher.

### 2. Three Spectrum of Vedas

The Vedic spectrum has three divisions- Karmakanda, Jnanakanda and Upasanakanda. Among them Upasanakanda does not have a prescribed structure to follow so what their teacher thought to the structure for an upasaka. So the word means to "to sit close to someone or waiting on someone with reverence."[1]

### 2.1. Karmakanda

Karma Kanda is that way one should found his own duravasanas and eradicate through the actions. It ends with the purification of mind. Eradication of self actions is the root of karmakanda. The unselfish actions clear the dvanthas and and six passions of desires - slokakama, krodha, lobha, moha, mada and matsarya (lust, anger, greed, illusion, pride and envy)[2]. So a seeker should do that actions till the mind should clear.

### 2.2. Jnanakanda

Karmasanyasi is the adikari of tatvanjana. The way to get salvation is dyanayoga, but it cannot substantiate without samadhana. So the seeker should be executes dyanayoga. The difference between karmayogi and Karma Sanyasi is that - a karma yogi is that one who abandonment the result of action and the Karma Sanyasi is that one who abandonment action itself. The mind of a karmasanyasi will purified through dhyana and gradually he loses his pride and reaches supreme soul. There is nosolid way as Jnana to reduce the garbage of Atman in Vedas or in other texts – 'Na hi jnanenasadrsamPavithramihavidyate'[3]

### 2.3. Upasanakanda

The word Upasana is derived from the roots 'upa' -near and 'asana'- from as. So the word has different meanings and literally meaning of the word is 'to sitting near

#### Volume 4(2), September 2017



### JOURNAL of dbct

(sitting near to guru to gain the secret knowledge or sitting near to the reality which leads to liberation) or 'attend to'. Upasana is a life style, and sometimes it regards as the action less life style also. According to Vedantasara the definition is as follows "Upasana is a kind of mental process relating to the qualified Brahman such as, for instance, the SandilyaVidhya"[4]. According to Sree SankaraUpasana is "mentally approaching the form of the deity or the like, as it is presented by the eulogistic portions of the Vedas relating to the object of meditation, and concentrating on it, excluding conventional notions, till one is completely identified with it, as with one's body, conventionally regarded as one's self"[5]. Here the definition reveals that the object of meditation may be any object or any deity or Brahman. So that Upasana can be a mental process which helps an upasaka to know the true knowledge. It purifies mind and gave concentration to the devotee. Through the concentration he can reach the state of Samadhi. This concept of Upasana is to distinguish physical worship of a deity. Upasana developed a large tradition in Vedanta epoch. It flowered into the meaning of an intense kind of systematic meditation. The Upasana constitute the intellect that "you are that" [6]

#### 3. Different Types of Upasanas

The Upanishads provide significance to both Brahmopasana and Abrahmopasana. But we commonly used the word as Brahmopasana. There are so many illustrations in Upanishads about the Abrahmopasana. But it can't directly lead to Brahman so here Upasana means a 'life style' which leads to improve individual self to higher passions of mind. These types of upasanas assist a sadhaka to decontaminate his mind and leads to Brahmopsana. There are two types of upasanas in the Vedanta tradition – Sagunabrahmopasana and Nirgunabrahmopasana.

#### 3.1. Sagunabrahmopasana

The Upasana are two types - Nirakara and Sakara or Nirguna and Saguna. The negligence of Eshnathraya (purushartha, vitheshana and Dareshana) upasana will



become Nirakara or nirguna. The nirgunaupasakas worship supreme Lord as nirakara instead karmayogi's worship him as Sakara. At a time one can't follow these two paths.

The word meaning of Sagunabrahman is to attribute the qualities to the absolute or Brahman. The discipline of Advaitavedanta, Vaishnavism, and other philosophies has different opinions about Sagunabrahman. According to Advaitavedanta, Sagunabrahman refers to the Lord identical with his own infinite jnanam. The Lord is free from his Mayasakthi. When Brahman associates with sudhamaya, it appears as Isvara or sagunabrahman (MayopahithamchaithanyamIsvarah). He has the quality of eternality and undecaying. Saguanbrahman is not diverse from nirgunabrahman. Only the appearance of Saguanbrahman differ the both. He is appeared as the creator, preserver and annihilator of the universe. According to Sankaracharya the Isvara is: "that omniscient and omnipotent source must be Brahman from which occurs the birth, continuance, and dissolution of this universe that is manifested through name and form, that is associated with diverse agents and experiences, that provides the support for actions and results, having well-regulated space, time, and causation and that defies all thoughts about the real nature of its creation" [7]

The concept of Sagunabrahmopasana is based upon bakthi tradition. According to Vaishavismsagunabrahman is immortal, imperishable and eternal. This is not differing from Nirgunabrahma. This is not differing from Nirgunabrahman. The sagunabrahmam form indicated is generally Narayana or Krishna or Vishnu. To attain the absolute i.e. Narayana one should has the qualities of a devotee. The Vaishanvas believe that the Bakthi is the only way to attain the Supreme Lord. In Vaishnavismbakthimarga replaces Samkara'sjnanamarga.

#### 3.2. Bhaktimarga

Bhakti can be defined as an attachment, heart full participation, homage, faith, love, devotion or worship. When it comes in to the religious matter it becomes the attachment, faith or devotion to a representational God by a devotee. In ancient Hindu



religious texts like Upanishds, Bagavat-gitadifferentiates it in a different manner. Upanishad explain the term in a simply means participation devotion and love for any endeavor while the Bhagavat- gita defined it as a path of spirituality and towards moksha.

The Upasana have various methods for each and every yuga[8]. The different methods of Upasana according to the different yugasareas follows: - the Bagavatapuranasays that there are different methods of upasanas in different yugas. In Satya age orSatyayuga the men had calm mind, they had no feelings of animosity towards each other and had pity towards animals and other creatures. There was equality and friendly nature towards all beings surrounding them. They had control over their mind and senses. In that age the Lord was known as Hamsa, Suparna, Dharma, Aykta and Parmatma etc. Theupasana method was industriousness.

In the second age known as thretayuga lonely penance was replaced by sacrifice. The vessels, land and other accessories were used for sacrifices. In that age the pious men who are teachers of the Vedas worship the lord through the lore. In that age Lord was called by the names Vishnu,Prasanigarbha, Jayantha etc.

In the third stage, well known Dvapara the Lord was worshiped as Supreme Person. According to BhagavataPurana –" in that age men seeking to know the ultimate realty and worship the Supreme person, who is characterized by the regalia proper to amonarch, as indicated in the Vedas and the Thantras. Then the Lord was known as Vasudeva, Sankarshana and Pradyumna etc.

In the Kali age only the praise of the lord will leads to the Supreme reality. The lord have only one form but there are so many sub-forms like Krishna, Paramasiva, Devi etc. are based upon by the devotees who have different levels of knowledge. The lord of the universe (Iswara) and the lord of the body (Jiva) are the same one. The functions of Jiva first transferred into vitality then to the mind, the intelligent, and self-



consciousness. When its vitality will be ends it reaches its reality. The barrier to overcome the vitality is the trigunas or three qualities.

### 3.2.1. Trigunas

Sattva, Rajas and Thamas are the three gunas or modes of Budhhi that determinates a devotee's level of worship. By developing the qualities of sattva one should control the rajas and thamas. It results the grown of sattva and he will be a devotee of lord. Sattva develops only through the uses of sattvika things. Scriptures, water, the environment, surroundings, time occupation and birth, the object of contemplation mantra and purifycatory rites – these ten are contributory to the growth of particular quality. Ones worship methods depends upon among the above qualities. So the worship of various deitieswith various methods cannot be questionable.

The natural characteristic of a devotee is the causes of diversity in upasana. Men's attitude of mind determines his nature of upasana. A devotee whois gives up the anger and views the lord of distinct from himself is thamasa devotee whose practice of devotion to Lord be with a mind full of violence, hypocrisy and jealousy.

One who worship lords through an image or ideal etc is a rajasopasaka and he is also has the view that he is distinct from Lord and has also a view to acquiring objects of senses, fame and power.

The satvikaupasaka adores Lord a distinct from himself, but he aiming at the eradication of his sins and has the feeling that it is his duty to worship the Lord.

The paramabhakta has the following qualities: - the uninterrupted flow of mind to the Lord, combined with motiveless and unremitting love to God. The four fold way of attain the Lord through the Bakthimargopasana are (1) Salokya- Residence in Lords realm (2) Sarshti- Enjoying Lord's power,(3) Samipya- Living in Lord's presence (4) Sarupya- Possessing a form similar to Lord (5) and Sayujya – absorption into Lord's being.



#### 3.3. Nirgunabrahmopasana

According to Advaita Vedanta only the jnanamarga is capable to lead the state of salvation. The jiva or individual self has the quality of Brahman, but it can't reach the Supreme Reality without the atmanatmaviveka. The individual self is essentially the same as Brahman, thus it has the qualities of Brahman i.e. self luminous unlimited and free. Only the upadhis that is three types of bodies and avidya are the main causes that provide barriers to attain the Supreme goal. Thus the jnanamarga can only helps to the individual to attain the supreme goal. Liberation is nothing but the realization of one's identity. The identity found of two types jivanmukthavastha and videhamukthavastha.

#### 3.3.1. Jivanmuktha and Videhamuktha

A jivanmukta is one who liberates himself within the body and after he leaves his body, permanently reaches the Brahman. He would not bind with the circle of birth and death. The videhamuktha is one who attains the Brahman after the death. Among them Jivanmukthavastha is considered as the peak of Vedanta.

The jiva is tied with the limiting adjuncts or upadhis. He does not have the awareness about his own identity i.e. he is as real as the supreme reality. Without the knowledge he can't identified himself with the Supreme reality. He is bounded within the body as the ruler of the body and senses. To triumph over the bondage of samsara he should have some qualities. The qualities are the well-known sadanachatu shatayasampathi. (nithyanithyavasthuvivekah, ihamutrarthaphalabhoga viragah, Samad shatkasampathi, and Mumukshutvam)

There are two ways to attain the supreme Lord i.e. known as sreyomarga and preyomarga. Sreyomargais that path which is eternal, peaceful and full of joy. It gives importance to cultured life. Through this one can attain the higher positions of actions without result. This action guides a seeker to the awareness. This is a difficult path one that follows and accepts as a life style.



The preyomarga is that way which is followed by human who is not aware about the Supreme Soul. One who follows the preyamarga leads a life of an animal. He is not searching about the ultimate truth and reaches the hell of unawareness. This path only leads sensor pleasure and gives importance to physical values, through this one can leads a life style, totally depends upon actions. The actions are two types – Sakamakarma and Nishkamakarma.

Sakamakarma is that action which is done for a particular result of that action. For example: Aswameda.The nishkama karma is that action which is done only for duty. The result of that action cannot be important for a nishkamakarmi.

#### 4. Conclusion

Upasana has various methods based upon the seekers' characteristics. All the methods seek the purity of mind and unselfish actions. The methods are like the rivers and the goal is as like as the ocean. The difference between Supreme Lord and the Jiva is that the Lord is free from attachment. He knows that He is the Supreme Soul and shoot of this universe. The being which is the subtle essence is true, that is Atman and a preceptor who has the knowledge of this known as Jivanmukta.

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# MAPPILARAMAYANA- A MALABARI FOLK VERSION OF RAMAYANA

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### Abstract

Ramayana has been deeply interwoven into the cultural fabric of Indian subcontinent. Transcending its own stature as a religious text, it tells a story that is eternal in its interests and implications. Ramayana existed, from time immemorial as oral texts and alter texts in almost all languages and cultural contexts. Similarly it alone can claim to have myriads of extrapolations and interpolations. The uniqueness of Ramayana does not confine to this popularity of texts. The epic wields an eternal influence over all creative endeavors of our country. Thus it has been a source for literary works, art forms and so on. The Mappilaramayana coming from the folk song tradition of the Malabari Muslims or Mappilas is an example of how the epic has crossed cultural boundaries.

Keywords: Ramayana, Mappilaramayana, Mappila

#### 1. Introduction

Ramayana is considered as the *Adikavya*. The sage Vatmiki is said to have transmitted Ramayana orally to Lava and Kusha. Ramayana spread across India through the verse tradition. Bards or story tellers were common in India and these story tellers spread the different vernacular versions of the epic. Thus about three hundred versions of Ramayana exist in India today. Even today Ramayana serves the source material for several literary texts, paintings and performing arts.



The Malayalam language like other Indian languages has an entire literary and cultural tradition based on Ramayana. Malayalam folk traditions are abundant with stories from Ramayana. The epic has also been subjected to several re-readings and has become a tradition in itself. Ramayana as a culture has influenced other religious communities. An example for this is seen in what is now called *Mappilaramayana*.

*Mappilaramayana*is a work that narrates the events of the Ramayana in the Islamic folk tradition of '*Mappilappattu*'. In this work the important characters of Ramayana like Rama, Sita, Lakshmana and Surpanakha, etc., are presented in the traditional guise of Malabar *Mappila* (Islam) community and are sung in the style of *Mappilappattu*.

*Mappilappattu* occupies a special place among the traditional folk songs of Kerala. Its syntactic and customary peculiarities make it different from other folk traditions of Kerala. The *Mappilaramayana* is a work that can be included in this tradition. It contains exclusively words and phrases used by the Malabar Muslim community. All the characters from Ramayana are presented as *Malabari* Muslims. There are no changes in the story or characters. The incidents are presented in a facetious manner. The identity of its author and the time of composition remains a mystery even today. It is believed that this song first spread in the region of Vadakara in Kozhikode district. It existed in the oral tradition till recently it was compiled by the famous folklorist and scholar T.H KunhiramanNambiar. It was published by D.C books. Dr. M.N Karasseri during his Ph.D. research met Nambiar and it was his initiatives that brought to light *Mappilaramayana*.

### 2. KunhiramanNambiar and Mappilaramayana.

T.H. KunhiramanNambiar was born in 1922 in the village Memeunda near Vadakara. He worked as a primary school teacher. He was a scholar in Sanskrit and an expert in *jyotisha* and *vishachikitsa*. He was known as the patriarch of *Vadakkanpattaukal* (a collection of Malayalam ballads of medieval origin). In 1998 he



won the T.P Sukumaran endowment by Kerala Sahitya Academy. He passed away in 2005.

Kunhir amanNambiar revived was the one who and protected 'vadakkanpattukal' from becoming a dead tradition. Poomathai Ponnamma, Mathileri Kanni, Kunjithalu were some of the songs he had published from his memory. Along with Mappilaramayana he had also published several other folk songs like 'Adiyalarudepattu, Thottampattu, Thamasappattu, Thacholippattu, several other Vadakkan folk songs and also some other collection of Mappilappattu. Kunhiraman Nambiar learned all these songs from his mother except Mappilaramayana. He heard Mappilaramayana from the people of his community and they were not Muslims. Some folk experts believe that the Mappilaramayana originated from an insane vagabond named Hassan Kutty who used to go around singing the song. However it is only an assumption regarding the origin of Mappilaramayana.

#### 3. Mappilaramayanaan analysis

The existing *Mappilaramayana* contains about one hundred and seventy lines that Kunhiraman Nambiar had jotted down from his memory. In addition to these one hundred and seventy lines, about seventeen more lines were added to the song by T. Shobha, the niece of Kunhirama Nambiar. She learned these lines from Nambiar himself during her childhood.

*Mappilaramayana* is divided into five parts. They are the introduction to Ramayana, Surpanakha's *Purappadu*, Shurpanakha's proposal, Ravana's visit to the *Asokavanika* and Hanuaman's entry to Lanka respectively. The story and characters are the same from *Vatmiki Ramayana*. No changes were made in this aspect. Everything is described in a comical manner. Several terms used in *Mappilaramayana* are related to the Muslim community. The terms *auli, bappa, mouthilavuka, ummanadu, pathumma, muthumma, beevi, sulthan, mappila, thattam, beedar, shariyath, nikkahu, khalbu, mangalam, mayyathu, alaakku etc., are some examples. Most of the words used in the* 



work are popular even today and are part of the everyday vocabulary of the common people of Vadakara. This linguistic peculiarity spreads some light into the time period of the work. As these terms are still in vogue, the *Mappilaramayana* might be a text of recent origin.

### i. Introduction to Ramayana.

Like in the *Adhyatmaramayana* this work also starts with an incantation to Lord Rama.

The narrator remembers Vatmiki at the beginning as well. He is addressed as *'thadikkaranauli'*. *'Thadikaran'* means breaded and the word *'auli'* may be a colloquial term for the address *Moulavi*or a Muslim saint. It also says that this was a song sung in the Malayalam month of *Karkidakam*. The narrator also admits that he has not seen the events of the story unfold with his own eyes. He also says that the recitation of Ramayana during the month of *Karkidakam* is like the prayer call from the mosques.

panduthadikkaranaulipadivannapattu Kandathallenjammaleelamayanamkathapattu Karkkidakamkathukathukuthirikkumpattu Kathurandilumkaiviralittorikuttumpattu

After that the narrator indicates all the major incidents in *Vatmikiramayana* like *Dasaratha's* three marriages, his plight to get children and how he got four sons from his three queens by drinking *payasa* etc. He calls Lord Siva as *'nanjunakkiyapadachon'* (the one who drank poison, referring to the story of Lord Siva drinking the poison *'kalakutavisha'*), Sita as *'kunjukuttithankamol'*(sweet little cute girl)and Lord Parasurama as *'thadi lama'*(breaded Rama).

Munnupenninedasharathannikkahchaithapattu Ammikummayammarinjummakkalillapattu



Payasamkudichumunnumnalupettapattu Nalilummuthullalamantyelukuttumpattu Nanjunakkiyapadachontevillodichapattu Kunjukuttithankamolekaipidichapattu Halilakithadilamanvaithadanjapattu Halumatteettannulamannattilethiyapattu Kuninonakettannelemmavashikaattiyapattu

The fourteen year exile of Rama and Dasaratha's death are also mentioned here. Bharatha who had gone to visit his maternal home return to Ayodhya and learns of these incidents and attempts to bring Rama back. This is where the first chapter ends. Here Nambiar's niece Shobha adds eleven lines that are not found in the published version of *Mappilaramayana*. The lines are given below:

> Kettiyokvaramkoduthittappilayapattu Lanka vanonpathumukkanlakkilakkiyapattu Kattapenninenokkilamankaduparathiyapattu Uukkanambalikkurangintyukkmattiyapattu Ittanamanumanumothkunnukayariyapattu Lamanumsugreevanumothashachaithapattu Shokyanamsugreevaneyumrashanakkiyapattu Nattilengumsitayetedanorungiyapattu Aayirammarammurichpalamanguketti Thekkukadalattamethilankakandapattu Lankayilkoranganumanthulliveenapattu

### ii. Surpanakha's Purappadu

Here Surpanakha, a widow, expresses her desire to marry again. She gets her brother Ravana's permission and sets out in search of a groom. The fifty six year old Surpanakha is in the guise of a sixteen year old girl. This section elaborates her



preparations for the *Purappadu*. Her late husband Vidyujjihvan was called the *sulthan* of *pathala* and she was called his *beevi*.

Ponnuperuthorupathalathilesulthanore minnumponmanikanmanibeevishurpanakha kalakkedinalakkilesulthanmayyathayi sheelamketyokkinnumvenammappilayonnu.

This is how the narrator describes Shurpanakha's makeover:

Ottakkottaveluthunarachathalayilelomam Kattakkariyumthenumcherthukaruppikkunnu Thadeelottalomamneendathukillippokki Mukkilemanjayileelukuthikkacharapokki

#### iii. Shurpanakha's proposal

Shurpanakha sees Rama and falls in love with him. She also proposes her love to him. Shurpanakha enquires Rama who he is and where he is from.

 $\label{eq:alpha} A araning alubaly a kkar a perenthado$ 

# Kudekanunnarapennubeedarano

Rama tells her everything about himself and asks her who she is. She tells him that she is Ravana's sister and wants Rama to come with her to Lanka. Rama says that he is already married and is not interested. Shurpanakha says that according to the Law of *Shariyath*a a man can have more than one wife.

Aninupennunaloanjovachalentha

#### Penninnanganepadillennashariyathiluniyamam

Annoyed by Shurpanakha's pestering Rama sends her off to Lakshmana, saying that he will like her when he sees her.

#### 4. Ravana's visit to Ashokavanika

This is the most interesting part of *Mappilaramayana*. Ravana is upset that Sita, even after being his prisoner for over a year, has not submitted to him. In an attempt to change her mind he goes to *Ashokavanika* where Sita is. He asks her whether she finds



him unattractive, if that is the reason for her rejection.He confesses his love to her and tells her about the advantages in marrying him. Ravana says that he has made all the necessary preparations for Sita in Lanka. Sita doesn't budge. Not receiving a positive response from Sita, he tells her that Rama married someone else, and that she should not waste her time waiting for him. Instead she should marry him and be happy. Ravana asks Sita why her face is still dark like a clouded sky while proposals like his can bring rains for days.

Muthumole nine njammalulankayilkondachittethiranalayimuthekathidumpumale enkarlenammalothorulajiyamvanalu ennathilbisheshavumsanthoshamenikkilla

Angered by Sita's response Ravana says that the one she is awaiting has already married someone else and forgotten all about her.

Randunalumumparinjunjammalusokaryam Kandakanjalamanorupennuvachakaryam Chathapayyintyalanokkikuthirinjittentha Kuthadangiyorothapayyinemattivangipott

Here also Shobha adds six lines

Kanjirakkurupalilittalkaypmaruoponne Nanjunakkiyanayinundonadariv penne Nine vittuketti penne moyyadakkamcholli Pinneyenthinuthenolichapathiramnakkunnu Ponnuponnannekilundomeyyoyinjuponnu Pennupennannenkilundoanoyinjuponnu.

### 5. Hanuman Enters Lanka.

This is the final chapter of *Mappilaramayana*. It narrates the entry of Hanuman into Lanka. The time he chooses to jump to Lanka is quite interesting. Hanuman chooses to enter Lanka when Ravana is shaving his beards. Since he has ten heads,



Hanuman assumes that it will take Ravana quite some time to finish shaving. At that time the five female demons guarding Sita will also be asleep, so he can slip in and out without being noticed. The descriptions of the *Rakshasis* are vulgar.

Kalankarinkalanravanan paththadivadippikkumnerath valullanumanolankayilchadichelullakombathkudunnu pandarakkoyipolanjupennungalkundanakkaivachorangunnu

Hanuman kills all those demons who stand in his way on his return journey. The poem ends here.

Valittadikolittadineren innittadikollunnathkollunnathchavunnu

#### 6. Conclusion

It is interesting to note that the narrator was successful in blending Ramayana with the Kerala Muslim culture in a hilarious way. The *Mappilappattu* is known for its hilarious language and style. The Ramayana, which has till now only been reinterpreted with an aura of religious piety, here is given a coat of humor. It is also presented in a completely different cultural milieu. The narrator deserves credit for such an attempt.

It is not clear if the entire Ramayana was translated in such terms. More research is needed in that area. A Ramyana of this nature is very interesting. This is the reason why this work gained national popularity. Paula Richman's *Ramayana Stories in Modern South India* containsan English translation of the *Mappliaramayana*. This translation was made by John Richardson Freeman. Modern historians view *Mappilaramayana* as a historic text which shows the influence and popularity, Ramayana has on other religious communities.

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# क्प्रातिशाख्ये अष्टाध्याय्यां च संज्ञा-परिभाषासूत्राणाम्

# साम्य–वैषम्य विचारः द्य

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# निबन्धसारः

प्रातिशाख्यं विद्यते वेदस्य लक्षणग्रन्थः । प्रातिशाख्येन वेदस्य बाह्यस्वरुपं निर्दिश्यते । सन्ति वेदाभ्यासस्य पञ्च प्रकाराः 1) अध्ययनम् 2) विचारः 3) अभ्यासः 4) जपः 5) अध्यापनम् । एषु अध्ययनं वेदस्य श्रवणं द्योतयति । विचारादयः चत्वारः वेदस्य मननं द्योतयन्ति । विचारो हि द्विधा प्रवर्तते – अर्थतो लक्षणतश्च । वेदार्थज्ञातैव सकलं

शुभं प्राप्नोति । वेदार्थज्ञानहीनो वेदपाठकः स्थाणुरुच्यते । तथाहि – स्थाणुरयं भारहारः किलोभू**त्** अधीत्य वेदं न विजानाति योर्थम् ।

योर्थज्ञ इत् सकलं भद्रमश्नुते नाकमेति ज्ञानविघूतपात्मा ।

# उपोद्घात: च

यथा निरुक्तेन वेदार्थो विचार्यते तथैव लक्षणेनापि वेदार्थौ वर्ण्यते । तथाहि शास्त्रवचनम् –

लक्षणं यो न वेत्यृक्षु न कर्मफलभाग्भवेत् ।

लक्षणज्ञो हि मन्त्राणां सकलं भद्रमश्नुते ।।

अर्थात् मन्त्रलक्षणविदेव समग्रं भद्रमवाप्नोति । भवत्यर्थज्ञानं लक्षणज्ञानपूर्वकम् । उक्तञ्च ।

स्वरो वर्णोक्षरं मात्रा दैवं योगार्षमेव च ।

मन्त्रं जिज्ञासमानेन वेदितव्यं पदे पदे ।

मन्त्रज्ञानाभिलाषिणां कृते प्राथम्थेन स्वरवर्णाक्षरमात्रादेवता—विनियोगर्षीनां ज्ञानं प्राप्तव्यमस्ति। एषामेव स्वरादीनां ज्ञानाय प्रतिशाख्यमुपयोगि वर्तते । अस्ति प्रातिशाख्याध्ययनस्य फलं मन्त्राणां लक्षणज्ञानम् । अत एव ऋक्प्रातिशाख्य ग्रन्थस्यापरं नाम विद्यतेऋक्.लक्षणम् ।प्रातिशाख्यशब्दस्यव्याख्या एवं भवति—शाखायां शाखायां प्रति प्रतिशाखम्।प्रतिशाखं भवं प्रातिशाख्यम्। प्रातिशाख्यग्रन्थानाम् आस्ति द्विविधं महत्त्वम्। प्रथमं भारते व्याकरणशास्त्रस्य ऐतिह्यसम्बद्धम् द्वितीयञ्चोपलब्धसंहितानां पाठस्वरुपविषयम् । व्याकरणशास्त्रस्य प्रायः सर्वे६पि पारिभाषिकशब्दाः प्रातिशाख्यग्रन्थेभ्यः स्वीकृताः सन्ति ।

प्रातिशाख्यग्रन्थेषु 'ऋक्प्रातिशाख्यम्' प्राचीनं प्रामाणिकञ्च वर्तते । अस्यैव अपरं नाम 'पार्षदसूत्रम्' इत्यस्ति । शौनकः इदं पार्षदसूत्रं रचयामास। अयं ग्रन्थः अष्टादशपटलेषु विभक्तः वर्तते। एषु पटलेषु ग्रन्थकारः



स्वरं–वर्ण–सन्धि–क्रमपाठपदविभाग–वर्णोच्चारणदोष–वेदपारायण–गायत्र्यादि छन्दःप्रभृति विषयाणां विस्तरेण वर्णनं चकार ।

व्याकरणम्(अष्टाध्यायी) द्य

व्याकरणं वेदाङ्गेषु तृतीयं स्थानं भजति । 'मुखं व्याकरणं स्मृतम्' इति वचनाङ्गेत् व्याकरणं वेदस्य मुखरूपत्वात् षडङ्गेषु विद्यते प्रधानम् । प्रधाने कृतो यत्नः फलवान् भवतीति भाष्यकृतः पतञ्जलेरुक्त्या वेदानां ज्ञानाय रक्षणाय च व्याकरणं प्रमुखं साधनम् । व्याकरणशास्त्रं वैदिकलौकिकशब्दानां व्युत्पत्तिमुपदिश्य तेषां समुचितं प्रयोगमपि शिक्षयति । व्याकरणशास्त्रप्रणेतारः अनेके वैयाकरणांः बभूवुः यथा इन्द्रः, चन्द्रः, आपिशलिः शाकटायनः पाणिनिश्च । तेषु पाणिनिः तद्विरचिता अष्टाध्यायी च विशिष्टां ख्यातिम् आप्नुतः स्म । साम्प्रतं व्याकरणरूपस्य वेदाङ्गस्य प्रतिनिधित्वं करोति पाणिनीयं व्याकरणम् ।

ऋक्प्रातिशाख्यस्य तथा अष्टाध्याय्याः कालविषये बहुविधाः चर्चाः प्राचलन् । परन्तु अधिके विद्वांसः प्रातिशाख्यं पूर्वम् अनन्तरं अष्टाध्यायी इति अङ्ग्ीकुर्वन्ति । युधिष्ठिरमीमांसकादि केचन यास्कः, पाणिनिः, शैनकः, पिङ्गलः कौत्सः इत्यादयः सामान्येन समकालिकाः इत्युच्यन्ते । गोल्डास्टूकर तु पाणिनेः पूर्वकालिकत्व प्रत्यपादयत् । अस्तुनाम विषयं अनुसरामः ।

# संज्ञास्वरूपम् द्य

सम् उपसर्गपूर्वक ज्ञा धातोः निष्पन्नोयं शब्दः 'संज्ञा' इति । संज्ञायते अनया सा संज्ञा इति शब्दस्थैतस्य सामान्यं विवरणम् । एकत्र उपस्थापितायाः संज्ञायाः शास्त्रे अर्थबोधनसामर्थ्यं विद्यते । संज्ञा शब्दस्य प्रयोगः विपुलं एवम् अभीष्टम् अर्थं लघुतमोपायेन अवगमयितुं कृतः अस्ति । पतञ्जलिना च उक्तम् – संज्ञा च नाम यतो न लघीयः । कैयटेन प्रतिपादितं च– शब्दव्यवहारो लघुस्ततोपि लघीयो नाम । वृध्दिगुणदिसंज्ञाः व्याकरणशास्त्रे स्थानविशेषेषु स्व–स्व संज्ञीनां बोधम् उत्पादयन्ति। संज्ञासंज्ञ्योः भेदं दर्शयित्वा पतञ्जलिना उक्तम् – अथवोनाकृतिः संज्ञा, आकृतिमन्तः संज्ञिनः लोकेपि ह्याकृतिमत्रे मांसपिण्डस्य देवदत्त इति संज्ञा क्रियते। संज्ञाः परार्थाः अन्यत्र कार्यनिर्वाहाय उपकुर्वन्ति ।

# ऋक्–प्रातिशाख्येषु तथा अष्टाध्याय्यां पूर्णतः अथवा अंशतः समानसंज्ञासूत्राणि ।

# 1) अनुनासिकसंज्ञा ऋक् प्रातिशाख्ये –

- 1) अनुनासिकोन्त्यःद्य
- 2) अष्टावाद्यानवसाने प्रगृह्यानाचार्या आहुरनुनासिकान्स्वरान् ।
- तत् त्रिमात्रो शाकला दर्शयन्त्याचार्य शास्त्रपरिलोपहेतवद्य
- रक्तो वचनो मुखनासिकाभ्याम । अष्टाध्यायां तु एताभ्यां सूत्राभ्यां अनुनासिकासंज्ञा विधीयते
  - क) मुखनासिकावचनो६नुनासिकः द्य
  - ख) अणोप्रगृह्यस्यानुनासिक द्य



एतयोः अध्ययनेन ज्ञायते—यत् अनुनासिकसंज्ञाविधाने प्रातिशाख्ये वर्णमालाक्रमः आधारः अष्टाध्याय्यां तु उच्चारणस्थानमाधारीक्रियते इति। "रक्तो वचनो मुखनासिकाभ्यां" इति सूत्रे अष्टाध्यायीवत् दृश्यते। ऋकृप्रातिशाख्यकारः अ, आ, ॠ, ॠ, इ, ई, उ, ऊ एतेषां वर्णानां अनुनासिकसंज्ञायै'अष्टावाद्यनवसाने प्रगृहयानाचार्य आहुरनासिकान्स्वरान्' इति सूत्रं रचयामास। पाणिनिना तु ऋ ऋ वर्णान् त्यक्त्वा तेषां एव वर्णानां विकल्पेन अनुनासिकसंज्ञाम् अकरोत् अणोप्रगृहयानुनासिकः इति सूत्रेण।

2) संयोगसंज्ञा :—

ऋक् – प्रतिशाख्ये – संयोगस्तु व्यञ्जनसन्निपातः द्य

'संयोगं विद्यादव्यञ्जनसङ्गमम्।

अष्टाध्यायी – हलोनन्तराः संयोगः द्य

संज्ञायाः अस्याः विषये द्योरपि ग्रन्थयोः समानमेव लक्षणम् । प्रातिशाख्ये लोकप्रसिघ्दस्य व्यञ्जनशब्दस्य प्रयोगः कृतः, पाणिनिना तु हल्' इति शास्त्रीयप्रत्याहारस्य इति भेदः ।

# 3) संहिता संज्ञा —

ऋक्–प्रतिशाख्ये–१. पदान्तान्पदादिभिः संदधेदति यत्सा ''कालाव्यवायेन''द्य

2. संहिता पदप्रकृतिः द्य

अष्टाध्यायी – परः सन्निकर्षः संहिता ।)

ऋक् प्रातिशाख्य्यानुसारं 'पदान्त.. सूत्रानुसारं कालेन अव्यवहितं पदान्तेन पदादेः मेलनं येन भवति या संहिता । ऋक्–प्रतिशाख्ये 'संहिता पदप्रकृतिः' इति सूत्रानुसारं पदं संहितायाः मूलम् अस्ति । पदं सिध्दं अस्ति, संहिता साध्या ।

अष्टाध्यायी सूत्रं 'परः सन्निकर्षः संहिता इत्येतदनुसारं वर्णानां अतिशायितः सन्निधिः, अर्धमात्रायाः अपि अव्यवधानं तस्य संहिता इति संज्ञा । अत्र 'पर' इत्यस्य अर्थः ' अतिशयितः इति । सन्निकर्षशब्दस्य तु अर्थद्वयम्–प्रत्यासत्तिः तथा संश्लेषः। संश्लेषः वर्णानामेकालत्वसम्भावात् अत्र न युज्यते । तस्मात् सन्निकर्षपदस्य प्रत्यासत्ति अथवा समीप्यम् इत्यर्थः स्वीकरणीयः।

4) निपातसंज्ञा .

ऋक् प्रतिशाख्ये –क) इतरे निपाताः द्य

ख) क्रियावाचकमाख्यातमुपसर्गो विशेषकृत् ।

सत्वाभिधायकं नाम निपातः पादपूरणः ।।)

ग) निपातानामर्थवशान्निपातनादनर्थकानामितरे च सार्थकाः ।

नेयन्त इत्यास्ति सख्येह वाङ्मये मिताक्षरे चाप्यमिताक्षरे च ये ।।

अष्टाध्याय्यां आचार्येण तु निपातसंज्ञा द्विचत्वारिंशत् सूत्रैः विहिता दृश्यते ।

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(क) प्राग्रीश्वरान्निपाताः (1–4–56) इत्यारभ्य अधिरीश्वरे (1–4–57) पर्यन्तम् ।
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(ख) प्रादयः (1–4–58)



अस्मिन् विषये प्रातिशाख्यस्य मतं पूर्वोक्तनंा त्रयाणां सूत्राणामाधारेण एवं कथयितु शक्यते यत् नामाख्यातोपसर्गान् विहाय ये भिन्नाः सार्थकशब्दाः ते कदाचित् पादपूर्तिनिमित्तमपि प्रयुज्यन्ते ते निपाताः। एतेषां संख्या तु निश्चिता नास्ति । उक्तम् च ब्रहद्वेवतायाम् –

इयन्त इति संख्यानं निपातानां न विद्यते ।

वशात् प्रकरणस्येति निपात्यन्ते पदे पदे ।।

अष्टाध्याय्यानुसारं पूर्वोक्तसूत्रद्वयानुसारं चादिगणे प्रादिगणे च पठिताः शब्दाः निपाससंज्ञकाः, ये द्रव्यवाचिनः न सन्ति ।

निपातसंज्ञाप्रकरणे द्वयोः ग्रन्थयोः मध्ये ऋक्प्रातिशाख्ये सरलता सुबोधता, स्वरुपस्पष्टता इत्यादि दृश्यते । अष्टाध्यायां तु परिष्कृता परिमार्जितशैल्यां निपातसंज्ञास्वरूपविवरणं प्राप्नोति । ऋक् प्रतिशाख्यानुसारं निपातानां संख्या निश्चिता नास्ति । परन्तु गणपाठाधारेण पाणिनीयव्याकरणानुसारं निपातसंख्या निश्चेतुं शक्यते ।

5) **हस्व**संज्ञा ऋक्प्रातिशाख्ये —

ओजा हस्वाः सप्तमान्ताः स्वराणाम् द्य

अष्टाध्याय्याम् – उकालोज्झ्नस्वदीर्घप्लुतः द्य

अस्मिन् विषये उभयत्रपि समानता दृश्यते । समानस्वराणामेव हस्वसंज्ञा । केवलम् उपस्थापनशैली भिन्ना दृश्यते । ऋक् प्रातिशाख्ये वर्णान् गणयित्वा अ इ उ ऋ एतेषां चतुर्णा वर्णानां हस्वसंज्ञाविधानं भवति । पाणिनिना तु उच्चारणकालमाश्रित्य संज्ञा कृता । एतेन कारणेन प्रातिशाख्ये कालदर्शनाय 'मात्रा हस्वः (ऋ. प्रा. 1–27) इत्येतस्य विशेषसूत्रस्य रचना कृता ।

6) दीर्घसंज्ञा ऋक्प्रतिशाख्ये – अन्ये दीर्घाः द्य

पाणिनीये तु ऊकालोझस्वदीर्घप्लुतः इति पूर्वोक्तं सूत्रमेव ।

प्रातिशाख्ये वर्णमालाधारेण,पाणिनीये तु उच्चारणकालानुसारम् इति भेदः । तस्मात् प्रातिशाख्ये द्वे दीर्घः (1–29) इति सूत्रम् उच्चारणकालबोधनाय पृथक् कृतम् ।

7) प्लुतसंज्ञा ऋक् प्रातिशाख्ये – तिम्रः प्लुत उच्यते स्वरःद्य

अष्टाध्यायी – ऊकालोझस्वदीर्घप्लुतः इत्येव । समानता एव उभयत्रापि दृश्यते ।

8) लघुसंज्ञा ऋक् प्रातिशाख्ये —

1. लघु ह्रस्वं न चेत्संयोग उत्तरः ।

- 2. अनुस्वारश्च द्य
- 3. लघु सव्यञ्जनं ह्रस्वम् द्य

पाणिनीये – ह्रस्वं लघु द्य द्वयोर्मध्ये भेदः नास्ति ।

प्रातिशाख्ये ह्रस्वस्वराणाम्, लघु इति संज्ञा यदि तेषाम् परे संयोगः वा अनुस्वारः नास्ति चेत् । तेन सह व्यञ्जनसहितस्वराणामपि लघुसंज्ञा क्रियते अत्र । एतानि सूत्राणि छन्दपटलेषु अपि प्रोक्ताः सन्ति । पाणिनीयानुसारं एकेनैव सूत्रेण एषा संज्ञा कृता वर्तते । Volume 4(2), September 2017

9) गुरुसंज्ञा ऋक् प्रातिशाख्ये –

- 1) गुरूणि दीर्घाणि द्य
- 2) तथेतरेषां संयोगानुस्वारपराणि यानि द्य
- 3) गुर्वक्षरम् द्य
- 4) गुरुदीर्घम्

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पाणिनीये—(क) संयोगे गुरु द्य
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(ख) दीर्घ च द्य
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ऋक् प्रातिशाख्यसूत्रानुसारं ये दीर्घस्वराः, यस्मात् स्वरात् परं संयोगः विद्यते, अनुस्वारः विद्यते ते स्वराः गुरु– प्लुतवर्णानामपि गुरु–संज्ञा कृता दृश्यते । प्रातिशाख्ये 'गुरुणि दीर्घाणि' इत्येतस्य पुनरुक्तिः इव दृश्येते 'गुर्वक्षरम्' गुरुदीर्घम्' इति सूत्रद्वयम् । प्रतिशाख्ये तु विवरणाधिकं वर्तते, पाणिनिना तु संक्षिप्तशैल्यां सूत्रद्वयेन विषयः प्रतिपादितः ।

10) प्रगृहयसंज्ञा ऋक्प्रतिशाख्ये —

1) ओकारः अमन्त्रितजः प्रगह्यरूद्य	2) पदं चान्यः द्य
3) अपूर्व पदान्तश्च द्य	4) षष्ठादयश्च द्विवचनोन्त भाजस्त्रयो दीर्घाःद्य
5) साप्तमिकौ च पूर्वो द्य	6) अस्मे युष्मे त्वे अमी च प्रगृह्यः द्य

7) उकारश्चेतिकरणेन युक्तो रवतोपृक्तो द्राघितः शाकलेन द्य

अष्टाध्याय्यां प्रगृह्यसंज्ञा–

1) सम्बुध्दौ शाकल्यस्येतावनार्षे द्य	2) निपात एकाजनाङ् द्य
3) ओत् द्य	4) ईदूदेद्विवचनं प्रगृह्यम् द्य
5) ईदूतौ च सप्तम्यर्थे द्य	6) अदसो मात् द्य
7) शे द्य	8) उभः द्य
9) उञः द्य	१०) मय उञों वो वा द्य

प्रातिशाख्ये 'ओकारः आमन्त्रितजः प्रगृह्यः तथा पाणिनीये सम्बुध्दौ शाकल्येस्येतावनार्षे इत्यनयोः स्वरुपे भेदः स्पष्टः विद्यते । अत्र प्रथमसूत्रं एकवचनान्तसम्बोधनपदस्य अन्ते स्थितस्य पदपाठस्य ओकारस्य नित्यप्रगृह्यसज्ञा, यदि तस्य परे शब्दः अस्ति चेत् उत नास्ति चेत् । द्वितीयसूत्रेण अवैदिक इति परे ओकारस्य विकल्पेन प्रगृह्यसंज्ञा विधीयते । आमन्त्रितः तथा सम्बुध्दौ द्वे अपि पदे एकस्यैव अर्थस्य वाचकौ । ऋक्प्रातिशाख्यस्य अपूर्वपदान्तगश्च तथा अष्टाध्याय्याः 'ओत्' इति द्वयोः सूत्रयोः समानता एतावदेव अस्ति द्वयोरपि सूत्रोयोः अन्तस्य ओकारस्य प्रगृहयसंज्ञा विधियते, परन्तु ऋक्प्रातिशाख्ये अपूर्वपदस्य अन्तस्य ओकारस्य प्रगृह्यसंज्ञा, अष्टाध्यायां तु ओदन्तनिपातस्य प्रगृह्यसंज्ञा।

ऋक् प्रतिशाख्ये षष्ठादयश्चद्विवचोन्तभाजस्त्रयो दीर्घाः तथा पाणिनीये ईदूदेदद्विवचनं प्रगृह्यम् इत्यनयोः तुलना समाना, केवलं विवरणशैली भिन्ना।



पुनः समानताः — साप्तमिकौ च पूर्वौ — इदूतौ च सप्तम्येर्थ एकत्र वर्णमाला आश्रिता, अपरत्र ईत, ऊत् एत् इति । अस्मे युष्मे त्वे अमी च प्रगृह्याः इति सूत्रेन सह अष्टाध्यायिस्थ अदसो मात्, शे इत्यनयोः किञ्चित् साम्यं वर्तते । अमू शब्दस्य ऋक् प्रतिशाख्ये प्रगृहयसंज्ञा नास्ति ।

11) उपसर्गसंज्ञा ऋक् प्रतिशाख्ये –

- 1 ) प्राभ्यापरानिर्दुरनुव्युपापसंपरिप्रतिन्यत्यधि सूदवापि। उपसर्गाः विंशतिरर्थवाचकाः सहेतराभ्याम् द्यद्य
- 2) क्रियावाचकमाख्यातमुपसर्गो विशेषकृत्।

सत्वाभिधायकं नाम निपातः पादपूरणः द्यद्य

पाणिनीये तु – उपसर्गाः क्रियायोगे द्य

द्वयोर्मध्ये भेदः एषः ऋक् प्रातिशाख्ये उपसर्गाणां स्वरुपमुक्त्वा संख्यायाः विवरणं कृतमस्ति। पाणिनीये तु प्रादयः इति गणसूत्रस्याधारेण क्रियायोगे तेषां गाणपठितशब्दानाम् (प्र, परा,अप, इत्यादी) द्वाविंशति शब्दानां विवरणं कृतम्। ऋक् प्रतिशाख्ये तु विंशत्येव, कारणं निस् निर् दुस् दुर् इत्येषां चतुर्णा स्थाने प्रातिशाख्ये , निः दुः इति द्वयमेव। एतावन्ति सूत्राणि उभयोग्रन्थयोर्मध्ये पुर्णतः वा अंशतः समानतां दर्शयन्ति। एतद्विहाय कानिचन ऋक् प्रातिशाख्यसज्ञासूत्राणां अष्टाध्यायाः समानता नास्ति।

- १. रक्तसंज्ञोऽनुनासिकः द्य
- 2. अकारादियो दशनामिनः स्वराः द्य
- 3. ऊष्मा रेफी पन्चमो नामिपूर्वाः ( 1 76) इतोऽपि रेफीसंज्ञाविधायकानि 33 सूत्राणि च ।

अष्टाध्याय्यां तु एतानि सूत्राणि विहाय वृद्धिरादैच् अदेङ्गुणः तुलास्यप्रयत्नं सवर्णम्, दाधाघ्वदाप्, तरप्तमपौ धः इत्यादि बहण्यः संज्ञा ऋक् प्रातिशाख्ये तु उपलब्धाः न सन्ति। एतादृश्यः 62 संज्ञा याः केवलम् अष्टाध्याय्यामेव दृश्यन्ते ताः केषुचित् अपरप्रातिशाख्येषु, तथा अन्येषु चान्द्रादि व्याकरणग्रन्थेष्वपि उपलभ्यन्ते। परन्तु तासां लौकिकसम्बन्धित्वात् स्यात् ऋक् प्रातिशाख्ये तासां संज्ञानामुपलाब्धिः न।

परिभाषास्वरुपम् ।

परिभाषा इति परि उपसर्गपूर्वक भाष् धातोः अच् प्रत्ययान्तः शब्दः । परिभाषाशब्दस्य भिन्न भिन्न प्रकारेण व्याख्या कृता दृश्यते ।''परित व्यापृतां भाषां परिभाषां प्रचक्षते'इति स्वामी दयानन्दसरस्ववतिः ।

महाकविः माघः एवं कथयतिः—

परितः प्रमिताक्षरापि सर्वविषयं प्राप्तवती गता प्रतिष्ठाम् ।

न खलु प्रतिहन्यते कदाचित् परिभाषेव गरियसी यदाज्ञा ।।

शब्दकल्पद्रुमे –

अव्यक्तानुक्तलेशोक्तसन्दिग्धार्थप्रकाशिकाः ।

परिभाषा प्रवश्यन्ते दीपीभूताः सुनिश्चिताः ।।



वैयाकरणानां मते तु – परितः सर्वत्र पूर्वत्र परत्र व्यवहिते चानन्तरे च भाष्यते कार्यमनया सा परिभाषा (परिभाषासंग्रहभूमिका) तथा च अनियमप्रसङगे् नियमकारिणी परिभाषा। इको गुणवृध्दी इत्यादि अष्टाध्यायीस्थ परिभाषाणां तथा ऋक् प्रातिशाख्यस्थपरिभाषाणां विवेचनं च अत्र क्रियते ।

1) ऋक् प्रातिशाख्ये – असावमुमिति तदभावमुक्तं यथान्तरम् ।

पाणिनीये – स्थानेऽन्तरतमः ।

उवटेन भाष्ये – अन्तरः इत्यस्य ' सान्निकृष्ट', स्थानकरणानुप्रदानैः इत्युच्यते । ऋक् प्रतिशाख्ये अष्टाध्यायां च पूर्वोक्तविषये स्वरुपतः समानता एव दृश्यते । प्रतिपादनशैल्यां भिन्नता तु अस्त्येव । ऋक् प्रतिशाख्ये अल्पाक्षरता इति मर्यादामुल्लड.घ्य सरलतया सुबोधतया कथितम् । पाणिनीये तु अत्यन्तलाघवपूर्वकमस्ति उपस्थापनम् । 2) ऋक् प्रातिशाख्ये – स्थानप्रश्लेषोपदेशे स्वराणां हस्वादेशे हस्वदीर्घो सवर्णो द्य

पाणिनीये – अणुदित्सवर्णस्य चाऽप्रत्ययः । )

ऋक् प्रातिशाख्ये – सवर्णः तथा प्रश्लेषः एतयोः द्वयोः विषये चर्चा करणीया अस्ति । सवर्णपदस्य व्याख्या ऋक् प्रतिशाख्ये नास्ति । सवर्णशब्दस्य समानस्थनीय ः, समानप्रयत्नीयः शब्दः अभिप्रेतः स्यात् । प्रश्लेषपदस्य प्रश्लिष्टसन्धिरित्यर्थः । एतयोः द्वयोः तुलनायां समानता असमानता च दृश्यते । समानरुपता उभयत्रापि हस्वस्वरैः तेषां तथा तेषां सवर्णनां ग्रहणं भवति । ऋक् प्रतिशाख्यानुसारं केवलं स्थाने प्रश्लिष्टसन्धि प्रसङ्गे च हूस्ववर्णेः सवर्णानां ग्रहणं भवति । उदित् विषयः पाणिनीये अस्ति प्रतिशाख्ये नास्ति ।

3) ऋक् प्रतिशाख्ये – पदं पदान्तादिवदेकवर्णं प्रश्लिष्टमपि ।

पाणिनीये – 'आद्यन्तवदेकस्मिन्

ऋक् प्रातिशाख्ये विशेषपरिस्थितौ सन्धीनां प्रवृत्तिनिमित्तं रचितमस्ति एतद् सूत्रम् । अर्थः – परस्वरेणमिलितः एकवर्णात्मकः स्वरंः पदान्तः पदादि इव भवति । यस्मिन् स्थाने एकं पदम् केवलम् एकः वर्णः एव स्यात् तत्र सन्धिकार्याय इदं सूत्रं प्रवर्तते । अत्रापि समानता एव दृश्यते । ऋक् प्रतिशाख्ये परिभाषा सूत्राणां शैली सरला अस्ति अष्टाध्याय्यां तू परिष्कृता इति भेदः ।

ऋक् प्रतिशाख्ये अतिरिक्त परिभाषा सूत्राणि ।

(1)न्यायैमित्रानपवादान्प्रतीयात् द्य

समानाः परिभाषाः परिभाषेन्दुशेखरे :--

(क)पूर्वं ह्यपवादाः अभिनिविशन्त पश्चादुत्सर्गाः द्य

(ख)प्रकल्प्य चापवादविषयं ततःउत्सर्गोऽभिनिविशते ।

(2) सर्वशास्त्रार्थं प्रतिकण्ठमुक्तम् द्य

समाना परिभाषा परिभाषेन्दुशेखर —

बाधकान्येव निपातनानि ।

(3) पादवच्चैव प्रैषान् ।

(4)अप्रत्याम्नाये पदवच्च पद्यान्.



(5)सहोऽपधोऽरिफित एकवर्णवद्विसर्जनीयः स्वरदोषवत्परः ।

(6) पदान्तादिष्वेव विकरशास्त्रं पदे दृष्टेषु वचनात्प्रतीयात्द्य

(७)आनुपूर्व्येण संधीन् द्य

उपसंहारः द्य

पाणिनीये तु एताः परिभाषा ः विहाय अन्याः बह्व्यः परिभाषाः सन्ति । उदाः– इको गुणवृध्दी, आद्यन्तौ टकितौ, मिदचोऽन्त्यात्परः, ए च इग्घ्रस्वादेशे, षष्ठी स्थानेयोगा इत्यादि । वैदिकशब्दानां प्रवृत्तिनिमित्तम् अपेक्षितांना परिभाषाणामेवोल्लेखः ऋक् प्रतिशाख्ये आसि। तेन तासां संख्या अपि न्यूना । पाणिनीये तु तथा न । तत्र लौकिकशब्दानां विषयः भवति इति कृत्वा अन्याः 20 पर्यन्तं परिभाषाः, या ऋक् प्रातिशाख्ये नोपलभ्यन्ते इति शम् ।

# सहायकग्रन्था: |

- 1. यास्क : ,निरुक्तम् , चौधम्बा कृष्णदास अक्कादमि,वाराणसि |
- 2. पाणिनी, अष्टाद्घ्याय़ी, चौघम्बा कृष्णदास अक्कादमि वाराणसि |
- 3. नागेशभट्ट: , परिभाषेन्दुशेखर:, चौघम्बा कृष्णदास अक्कादमि, दिल्ली |
- 4. माघ: ,शिशुपालवधम् ,आर्. एस्.वाध्यार् & सन्स् ,पालक्काट्ट् |
- 5. नागेशभट्टः, परमलघुमन्जुषा, चौधम्बा कृष्णदास अक्कादमि वाराणसि |

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# ISSN 2348-7984 अभिमन्यु अनत कृत 'शब्द भंग' उपन्यास में युवा पीढ़ी:-

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जनम से लेकर मृत्यु तक मनुष्य कई अवस्थाओं से गुज़रता है। मनुष्य की हर अवस्था का एक दायित्व होता है। जिस का उसे निर्वाह भी करना होता है। ये दायित्व हमारी धार्मिक और सांस्कृतिक धरोहर है जिस में देश काल और स्थान के ही सबसे परिवर्तन होते रहते हैं। इन दायित्वों के पालन से ही परिवार, समाज, गाँव, शहर, देश और यहाँ तक की पूरा विश्वास सुचारु रूप से चलता है।

यौवन ज़िन्दगी का सर्वाधिक महत्वपूर्ण अवस्था है। जीवन की अन्य अवस्थाओं की अपेक्षा युवावस्था की अवधी अधिक दीर्घ होती है। युवावस्था में व्यक्ति का विकास पूर्ण सीमा तक पहुँचता है। इस अवस्था को भोगे रहा युवा वर्ग केवल देश की शक्ति ही नहीं बल्कि वहाँ की सांस्कृतिक आत्मा का प्रतीक भी होता है। युवावर्ग किसी भी काल या देश का आईना होता है जिस में हमें उस युग का भूत, वर्तमान और भविष्य साफ दिखाई पड़ता है। नव युवक अतीत का गौर एवं भविष्य का कर्णाधार होता है और इसी में यौवन की सच्ची सार्थकता भी है।

सदा से युवा पीढ़ी समाज सुधार करती आई है। आज भी युवकों समाज में फैली हर बुराईओं को दूर करने का बीड़ा उठाना होगा। आजकल के युवकों को हम शिक्षा तो दे रहे है पर दिशा नहीं देती। इसलिए आज के ज्यादा प्रतिशत युवक दीशाहीन होकर स्वयं को बिना पहचानते जीवित रहे है। वास्तव में युवकों को सही दिशा ज्ञान, अपने कर्तव्य ज्ञान, अपनी सांस्कृतिक धरोहर और अगली पीढी के उत्तरदायित्व को उठाने का ज्ञान सुचारु रूप से होना अत्यंत आवश्यक है।

अधिकांश हिन्दी उपन्यासों में युवापीढ़ी का चित्रण व्यापक रूप से देखने को मिलता है। अभिमन्यु अनत अब विश्व के लोकप्रिय हिन्दी लेखक है, जो अपने कई उपन्यासों में युवा पात्रों को अधिक महत्व देकर प्रस्तुत किया है। अनतजी की ख्याति का वास्तविक कारण यह है कि वे समाज के पीडित, दलित, शोषित और दुर्बल वर्ग के प्रखर प्रवक्ता है। अभिमन्यु अनत अपने

#### Volume 4(2), September 2017



कई उपन्यासों में युवा-पीढ़ी के कई समस्याओं के बारे में लिखा है। 'शब्द-भंग' अभिमन्यु अनत का एक सशक्त उपन्यास है। इस उपन्यास में युवा-पीढी के सम्मुख पड़ी भयावह परिस्थितियों को लेखक शब्द का साकार देकर व्यक्ति केलिए, समाज के लिए और देश के लिए चेतना व जागृति का कार्य करते है।

'शब्द-भंग' में अनतजी नशीले पदार्थों के घिनौने व्यापार का पर्दाफाश किया है। आजकल देश में नशीले चीज़ों की चर्चा के अलावा और कुछ नहीं है। 'शब्द-भंग' उपन्यास द्वारा लेखक यह भी बताया है कि ऐसे नशीले पदार्थों के माफिया में पुलिस, मंत्री जैसे सरकारी व राजनीतिक लोगों भी जोडे गये है। 'शब्द-भंग' का नायक रोबीन एक पत्रकार है और वह उपन्यास में ऐसी विनाशकारी शक्तियों के विरुद्ध आवाज़ उठानेवाली युवा-पीढी का प्रतिनिधित्व करते है। उपन्यास में रोबीन की लड़ाई लेखक इसप्रकार चित्रित करते है। जैसेः-

''उसे लगा था कि देश के कुछ अत्यंत ही तातकवर देश तथा उसके युवा-वर्ग को नशीले पदार्थों के जहरीले बवंडर से निकलने नहीं देना चाह रहे थे। परसों से तो रोबीन को जाँच - कमीशन के रवैये पर संदेह हो उठा था। उसने मन-ही-मन सोचा था कि अगर कानून को इस तरह मुट्ठी में लिया जा सकता है तो फिर देश का तो सत्यनाश हो जाएगा। उसने अपने विचारों को 'ले माते' में बडे ही नरम-शिष्ट ढंग से प्रस्त किया था।''<sup>1</sup>

यहाँ देश की युवा-पीढी को हानी पहुँ चानेवाले काले धंधे से संबंधित व्यक्तियों की असलियत रोबीन नामक पत्रकार 'लेमाते' नामक पत्र द्वारा पर्दाफाश करना-चाहता है। नशीले पदार्थों के व्यापार करनेवाले माफिया की नज़र सदा युवा-पीढी पर पड़ता है। क्योंकि उस उम्र में ऐसी चीज़ों पर आकर्षण होना स्वाभाविक है। ऐसी एक घटना 'शब्द-भंग' में अनतजी बताया है। जैसे:-

''पिछले मंगलवार से लामार लाशो का एक लड़का, जिसकी उम्र लगभग तेरह-चौदह साल की रही होगी, बेलमार समुद्र-तड से अभी तक अपने घर को नहीं लौटा। यह लडका इलाके के होटलों में सैलानियों को कौड़ियाँ-सीपियाँ बेचने का काम करता था। उसके बाप सोहना का यह कहना है कि उसका बेटा कुछ दिनों से ऐसे लोगों के जाल में फँसा हुआ-सा था जो शायद नशीले द्रव्यों का धंधा करते है, और.....।''<sup>2</sup>

# JOURNAL of dbct

# Volume 4(2), September 2017



प्रस्तुत उद्धरण द्वारा कल के नागरिक को विनाश की ऑर ले जानेवाले काले शक्तियों के प्रति लेखक अपना शेष प्रकट करता है। उपन्यास का नायक रोबीन भी काले धंधे करने वाले शक्तिशाली षड्यंत्रकारियों के प्रति अपने अंतरमन में विराजित शेष को पूर्ण स्वतंत्रता से 'ले मातें' नामक पत्र में अभिव्यक्त करता है। नशीले व्यापारियों द्वारा दिए गए बडे-बडे प्रलोभनों पर भी रोबीन अपने आपको बिकने को तैयार नहीं है। रोबीन का ऐसे ईमानदारी को वापसी में सदा तनाव ही मिलता है। उपन्यास में रोबीन का तनाव लेखक इस प्रकार चित्रित करते है:-

''फिर उसने अपने ही आपको अपने ही आपसे कहते सुनाहरगिज नहीं! संघर्ष को आगे ही बढ़ाना है तो अपनी कमाई के पैसे से। बखशी हुई जायदाद से नहीं। रात-भर चारपाई पर विभा खामोशी साधे रही और रात-भर रोबीन अपने आपसे तर्क करता रहा, अपने ही बिछाए मकड़े अब उसके दुश्मन अँधेरे में छिपे हुए नहीं उसकी लड़ाई है। वह अपने सिर को हाथों में ले लेता। रात-भर करवटें ले-लेकर वह उपाय ढूँढ़ता रहा।''<sup>3</sup>

यहाँ नशीले पदार्थों के धंधे से संलग्न तस्करों की श्रेणी में पुलिस एवं पब्लिक सेक्टर के उच्च अधिकारियों आदि प्रबल व्यक्तियाँ सबसे आगे शामिल है। ये जानकारी नायक को अत्यंत परेशान करता है। ऐसे ताकतवर शक्ति के विरुद्ध लडाई करने केलिए रोबीन अकेला है। ईमानदारी और स्वाभिमान को बेचकर नौकरी करना रोबीन का स्वभाव नहीं है। इसलिए उपन्यास में नायक को बहुत अधिक परेशानियों को सामना करना पड़ता है। उपन्यास में रोबीन का सोच ऐसे चित्रित है। ''उधर तो ईमान और जमीर बेचकर में समझौता नहीं कर सकता और बेकार रहकर भी तो जिया नहीं जा सकता। अकेला होता तो दूसरी बात होती। प्रलोभन में आकर बेईमानी से कमाए रुपए स्वीकार करके अपने हाथों के साथ-साथ अपनी आत्मा को भी मैला करना मुझसे नहीं हो सकेगा। मेरे सामने तीन रास्ते है - एक 'ले मातें' के निर्देशक और संपाद की नीति से समझौता करके फिरसे नौकरी पर लौट जाऊँ। दूसरा यह कि अपने पास के सारे सबूत और अब तक की तहकीकात के सारे कागजात एक ऊँची कीमत में बेचकर उन पैसों से अपना निजी अखबार चलाने की सोचूँ, या उस तीसरे विकल्प को अपनाकर गुलामी और बेकारी दोनों से अपने को मुक्त कर लूँ।''<sup>4</sup>



# JOURNAL of dbct

उपन्यास में रोबीन ईमानदार एवं स्वाभिमानी युवक है। इसलिए वह प्रलोभनों और धमकियों से प्रभावित होकर अपना इरादा या लक्ष्य बदलने वाले नहीं है। उपन्यास के अंत में नायक गुलामी और मज़बूरी से मुक्त होकर फ्रीलांसिंग के क्षेत्र में उत्तर आना चाहता है। लेकिन नशीले पदार्थों का व्यापार करनेवाले शक्तिशाली मंत्रियों और अधिकारियों द्वारा उसका हत्या भी हो जाता है। ऐसे समूह्य - विरुद्ध शक्तियों की ताकत 'शब्द -भंग' उपन्यास द्वारा अनतजी दिखाते है। साथ-ही-साथ लेखक यह संदेश भी देता है कि ऐसे काले शक्तियों के विरुद्ध हमारी युवा-पीढ़ी जागृत होना ज़रूरी है।

# संदर्भ ग्रंथः

शब्द भंग, अभिमन्यु अनत, प्रभात प्रकाशन चावडी बाज़ार, दिल्ली, 1989, पृ. सं. 116,119,146,152



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# യാത്രാകാവൃങ്ങളിലെ സാംസ്കാരികതലം

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നൂറുവർഷങ്ങൾക്കുമുമ്പ് വടക്കൻ കേരളത്തിൽ പ്രഫുല്ലമായിരുന്ന വെൺമണി പ്രസ്ഥാനത്തിന്റെ പരീക്ഷണവഴികളിൽ രൂപംകൊ ഒരു കാവ്യശാ ഖയാണ് യാത്രാകാവ്യങ്ങൾ. യാത്രാകുതുകികളായ വെൺമണിക്കവികൾ തങ്ങ ളുടെ യാത്രകളെ കാവ്യവത്കരിച്ച്, ആ യാത്രകളിൽ പങ്കെടുക്കുവാൻ കഴിയാതി രുന്ന സുഹൃത്തിനോ, ദയിതയ്ക്കോ ആയി സമർപ്പിക്കുന്നു. ഇപ്രകാരം ജന്മമെ ടുത്ത കത്തിന്റെ രൂപം വഹിക്കുന്ന ധാരാളം യാത്രാകാവ്യങ്ങൾ ലഭ്യമായിട്ടു ്. അവയിൽ ദർശിക്കുന്ന കേരളത്തിന്റെയും ജനങ്ങളുടെയും സംസ്കാരത്തെ അവലോകനം ചെയ്യുകയാണിവിടെ.

ജേർണലിസ്റ്റിക് സ്വഭാവം പ്രകടിപ്പിക്കുന്നവയും ഫീച്ചർ ലേഖനങ്ങളോട് പലതരത്തിലും സാമ്യം വഹിക്കുന്നവയുമാണ് യാത്രാകാവ്യങ്ങൾ.

''അതുപോലെ നാട്ടുകാര്യങ്ങളും, വീട്ടുകാര്യങ്ങളും നിത്യനിദാന പ്രശ്ന ങ്ങളും മാത്രമല്ല, യാത്രാവിവരണം, സാഹിത്യവിമർശനം, സാഹിത്യപ്രോത്സാഹ നം, സാഹിത്യകലാസിദ്ധാന്തങ്ങളുടെ ആവിഷ്കാരം, ഭാഷാപോഷണവൈയഗ്ര്യം മുതലായി അന്നത്തെ കവികളെയും കവിതകളെയും സംബന്ധിച്ച രസകരവും മർമ്മപ്രധാനവുമായ പല വിവരങ്ങളും ഈ കത്തുകളിൽനിന്ന് ലഭിക്കുന്നു. മാത്ര മല്ല, അന്നത്തെ കവികളുടെ ജീവിതരീതി, ജീവിതദർശനം, കാവ്യദർശനങ്ങൾ സഹകവികളെക്കുറിച്ചുള്ള അഭിപ്രായങ്ങൾ മുതലായ കാര്യങ്ങളെപ്പറ്റി ആധികാ രികമായ അറിവ് ലഭിക്കുന്നതിനുള്ള വിലപ്പെട്ട ഉപദാനവസ്തുക്കളും കൂടി

യാണീ കത്തുകൾ'' എന്ന് അകവൂർ നാരായണനും സാക്ഷ്യപ്പെടുത്തുന്നു. യാത്രാകാവ്യങ്ങളിലെ ഇതിവൃത്തം സാധാരണ മനുഷ്യരുടെ നിത്യജീവി തത്തിലെ സംഭവങ്ങളിലും, അനുഭവങ്ങളിലും അധിഷ്ഠിതമായിരുന്നു. അതി നാൽ സമകാലീന സാമൂഹികജീവിതത്തിന്റെ പ്രതിഫലനം ദർശിക്കുവാൻ കഴി



യും. യാത്രാകാവ്യങ്ങളിൽ മാർഗ്ഗവർണ്ണന, അനുഭവചിത്രീകരണം, സ്ഥലങ്ങളുടെ യഥാതഥവർണ്ണന, യാത്ര കവിയിൽ ഉണർത്തുന്ന പ്രതികരണം, ഇവയെല്ലാം അട ങ്ങുന്ന ചരിത്രപരവും, സാഹിത്യപരവും, സാമൂഹ്യവും, സാംസ്കാരികവും, മതപരവുമായ ചരിത്രരേഖകളായി യാത്രാകാവ്യങ്ങൾ തീരുന്നത് അതുകൊ ാ ണ്.

യാത്രാകാവ്യങ്ങളിൽ പരാമർശിക്കപ്പെടുന്ന കവികളും കാവ്യപരാ മർശവും, യാത്രോപാധികൾ, സ്ഥലപുരാണം, സാമൂഹികചിത്രങ്ങൾ ഇവയാണ് സാംസ്കാരികതലത്തിൽ ഉൾപ്പടുത്തിയിരിക്കുന്നത്.

# കവികളും കാവ്യപരാമർശവും

യാത്രാകാവ്യങ്ങളിൽ കവികൾ ക ുമുട്ടുന്ന മറ്റു കവികളെക്കുറിച്ചുള്ള പരാമർശമു ്. പങ്കെടുത്ത സാഹിത്യസഭകളെക്കുറിച്ചും, കവികൾ തമ്മിലുള്ള സ്നേഹബന്ധങ്ങളെക്കുറിച്ചും നുതനകാവ്യങ്ങളെക്കുറിച്ചുമുള്ള വിവരങ്ങൾ അട ി എഴുതിയ ങ്ങിയിരിക്കുന്നു. കൊട്ടാരത്തിൽ ശങ്കുണ്ണി നടുവത്തച്ഛനുവേ 'യാത്രാചരിത്രം' തലശ്ശേരിയിൽവച്ചു നടന്ന 1904ലെ ഭാഷാപോഷിണിസഭയുടെ ഏഴാം വാർഷികത്തിൽ പങ്കെടുത്ത അനുഭവമാണ് വിവരിക്കുന്നത്. കടത്തനാട്ട് ഉദയവർമ്മ ഇളയതമ്പുരാന്റെ നേതൃത്വത്തിലാണ് സഭ സംഘടിപ്പിച്ചത്. കൊട്ടാര ത്തിൽ വറുഗീസ് മാപ്പിളയായിരു ത്തിൽ ശങ്കുണ്ണിയുടെ സഹയാത്രികൻ ക ന്നു. പുന്നശ്ശേരി നമ്പി, വെള്ളാനശ്ശേരി വാസുമൂസ്സ്, ഭാസ്കരൻ മൂസ്സ്, നാരായ നീലകണ്ഠശർമ്മാവ്, ശാമുമേനോൻ, ണൻ നമ്പ്യാർ, ശേഷഗിരി പ്രഭു, കുത്താമ്പിള്ളി രാമൻ നമ്പ്യാർ, ശങ്കരൻകുട്ടി മേനോൻ, ഒടുവിൽ, നടുവത്ത് മഹൻ, കൃഷ്ണമേനോൻ, കണ്ണൻ നമ്പ്യാർ, ചിറയ്ക്കൽ രാജരാജവർമ്മ എന്നി വർ സഭയിൽ പങ്കെടുത്തതായി കവി പ്രസ്താവിക്കുന്നു. മടക്കയാത്രയിൽ നടുവ ത്തച്ഛനേയും ക ).

'ദക്ഷിണയാത്രയിൽ' കുഞ്ഞൻവാര്യർ ദക്ഷിണദിക്കിലേക്ക് നടത്തുന്ന യാത്രയാണ് വിഷയം. ഡോ. പി. കൃഷ്ണവാര്യരോടൊപ്പമാണ് യാത്ര. കെ. ജി. മേനോൻ, മാധവൻ രാമലിംഗം, പി. എസ്. വാരിയർ, പി. വി. ജോർജ്ജ്, പരമേ ശ്വരൻ, വാസുദേവൻ, ആറ്റൂർ കൃഷ്ണവാര്യർ, കൃഷ്ണ പിഷാരടി, ഉള്ളൂർ, സഹോദരനായ കൃഷ്ണൻ, പന്തളം കേരളവർമ്മ, ശങ്കരമേനോൻ, ഈശ്വരവാ



രിയർ എന്നീ കവികളെ കതായി രേഖപ്പെടുത്തുന്നു. അഷ്ടമിയാത്രയിൽ നടു വത്തച്ഛൻ കെ. വി. രാമൻ മേനോൻ, പരമേശ്വരൻ ഭട്ടതിരി, രസികരഞ്ജിനിയുടെ ചുമതലക്കാരനായ രാമവർമ്മ അപ്പൻ തമ്പുരാൻ, കേരളവർമ്മ വലിയ കോയിത്ത മ്പുരാൻ എന്നിവരുമായുള്ള അഭിമുഖം വിവരിക്കുന്നു.

സാത്വികനും, വന്ദ്യവയോധികനും, രോഗക്ളിഷ്ടനും ആയ ശുദ്ധ ബ്രാഹ്മണശ്രേഷ്ഠൻ നടുവത്തച്ഛനും കവികുലസമ്രാട്ടും സുഹൃത്തുമായ കേരളവർമ്മ വലിയ കോയിത്തമ്പുരാനും തമ്മിലുള്ള സ്നേഹാദരങ്ങൾ വിലമതി ക്കാനാവാത്തതാണ്.

അപ്പൻ തമ്പുരാനുമായുള്ള അഭിമുഖത്തിൽ നമ്പൂതിരിസമാജം അനുഷ്ഠി കേ കർമ്മങ്ങളെക്കുറിച്ച് നടുവത്തച്ഛൻ വ്യക്തമായ നിർദ്ദേശങ്ങൾ നൽകു ന്നു. 'എന്റെ തെക്കൻ സർക്കീട്ടിൽ' ഒരു വടക്കൻ എന്ന് സ്വയം വിളിക്കുന്ന കവി നടുവത്തച്ഛൻ, ഗ്രാമത്തിൽ തമ്പുരാൻ, ഉണ്ണിത്തമ്പാൻ, കേരളവർമ്മ വലിയ കോയിത്തമ്പുരാൻ എന്നിവരെ ക തായും എ. ആർ. രാജരാജവർമ്മയുടെ വിവാഹത്തിൽ പങ്കെടുത്തതായും പറയുന്നു.

'കവിസമാജയാത്രാശതക'ത്തിൽ കോട്ടയത്ത് മനോരമയിൽവച്ച് കൂടിയ കവി സമാജത്തിൽ നാണുപിള്ളയോടൊപ്പം കെ. സി. കേശവപിള്ള പങ്കെടുത്ത കാര്യം വിവരിക്കുന്നു. ക ത്തിൽ വറുഗീസുമാപ്പിള, കവി വില്വവട്ടം, കൊട്ടാര മാധവൻ, ശിവരാമൻ എന്ന ഇൻസ്പെക്ടർ, കുഞ്ഞിക്കുട്ടൻ ത്തിൽ ശങ്കുണ്ണി, തമ്പുരാൻ, നാരായണൻ, പന്തളം കൃഷ്ണവാര്യർ, വെണ്മണി മഹൻ, മറിയപ്പള്ളി തമ്പുരാൻ, പുന്നശ്ശേരി നമ്പി, മാവേലിക്കരത്തമ്പുരാൻ, രാജരാജവർമ്മത്തമ്പു രാൻ എന്നിവരും സന്നിഹിതരായിരുന്ന, സഭയിൽവച്ച് ഭാഷാപോഷിണി എന്ന പേര് നീലകണ്ഠശർമ്മ നിർദ്ദേശിച്ചു. സഭയുടെ പ്രവർത്തനങ്ങളെക്കുറിച്ച് തീരു മാനങ്ങളെടുത്തു. ഭാഷാസംസ്കാരത്തിനു യത്നിക്കണം, കൂടുതൽ നല്ല ഗ്രന്ഥ ങ്ങൾ രചിക്കണം, മത്സരങ്ങൾ നടത്തണം, സഭ ഇടയ്ക്കിടെ കൂടണം എന്നിവ യായിരുന്നു നിർദ്ദേശങ്ങൾ. ഘണ്ഡാവിംശതി പരീക്ഷയും നാടകപരീക്ഷയും ചാതുര്യ പരീക്ഷയും നടന്നു. ഭാഷാപരിഷ്കരണത്തെക്കുറിച്ച് ഒരു ലേഖനം സഭ യിൽ കെ. സി. വായിക്കുകയു ായി. ഇംഗ്ളീഷ് പദങ്ങൾ ഭാഷയോടു ചേർത്തുള്ള സംസാരം അരോചകമാണെന്നത് ഓർമ്മിച്ചു.



''സാറേ നിങ്ങളുടെ ഫാദർ പോയതിഹ ഞാൻ കരെന്റെ ന്യൂസ്പേപ്പറും കീറാതേകുക, നൈഫു പാർക്കിലതുമങ്ങല്ലെക്സലന്റാട്ടുമേ ഏവം ഹൗണവചസ്സു കേരളഗിരാ ചേർക്കുന്ന രീതിക്കെഴും സാവദ്യത്വമതാണതിങ്കൽ വിശദം ഖണ്ഡിച്ചു ഞാൻ ചൊന്നതു''

തിരിച്ചുള്ള യാത്രയിൽ ബോട്ടിലിരുന്ന് രാമവാര്യരുടെ വ്യാഖ്യാനത്തോടു കൂടിയ ഹോരാതന്ത്രം വായിച്ചതായി സഭയിലും ബോട്ടിലും താമസിച്ച വീട്ടിലും വച്ച് ഗായകനെന്ന് കീർത്തികേട്ട കെ. സി., കർണ്ണാടക സംഗീതം ആലപിച്ച തായും കാവ്യം വെളിപ്പെടുത്തുന്നു.

ഗുരുവായൂർവച്ചുകൂടിയപണ്ഡിതസമാജത്തിൽ പങ്കെടുത്ത വള്ളത്തോൾ, പി. വി. കൃഷ്ണവാര്യരെ സമാജത്തിന്റെ വിശദാംശങ്ങൾ ധരിപ്പിക്കുന്നു. സഭാ പതി സുന്ദരയ്യരായിരുന്നു. അച്യുതൻ നായർ, കോന്തിമേനോൻ, പതിനൊന്നാം കൂർ തമ്പുരാൻ, കൃഷ്ണാചാര്യർ, നീലകണ്ഠൻ നമ്പി, ടി. എ. അനന്തനാരായണ ശാസ്ത്രി, കുറ്റൂർ നമ്പൂതിരിപ്പാട് എന്നിവരും സഭയിൽ പങ്കെടുത്തിരുന്നു.

മരുത്തോംപിള്ളി നമ്പൂതിരിയുടെ ശ്രീ ശങ്കരാചാര്യ ദർശനമാണ് നടുവ ത്തച്ഛൻ 'ശ്യംഗേരിയാത്ര'യായി രചിച്ചത്. കൊ.വ.1066–ൽ മദിരാശി ഗവർണർ ആയിരുന്ന വെൻലോക് പ്രഭുവിന്റെ തിരുവിതാംകൂർ സന്ദർശനമാണ് 'ഗവർണർ യാത്രാ ശതക'മായി മറിയപ്പള്ളി ഉദയവർമ്മ കോയിത്തമ്പുരാൻ രചിച്ചത്. കോട്ട യത്ത് മാർ ദിവന്നാസ്യോസ് മെത്രാപ്പോലീത്താ സായ്വിനെ സന്ദർശിച്ച് സഭ യുടെ സ്നേഹത്തെ അറിയിച്ചതും, ശ്രീമൂലം തിരുനാളിന്റെ ഒപ്പം തിരുവനന്തപു രത്ത് താമസിച്ചു മടങ്ങിയതും രേഖപ്പെടുത്തിയിരിക്കുന്നു. എം. കുഞ്ഞൻ വാരി യരുടെ 'ഉത്തരയാത്ര'യിൽ കൊച്ചിയിലെ മൂലം തിരുനാൾ മഹാരാജാവിന്റെ ഉത്തരേന്ത്യയിലേക്കുള്ള സന്ദർശനം വർണ്ണിക്കുന്നു. രാജാവ് രാജോചിതമായ സൽക്കാരങ്ങളേറ്റാണ് യാത്ര ചെയ്തിരുന്നത്. ബറോഡയിലെ പ്രതാപസിംഹൻ, അയോദ്ധ്യയിലെ മഹാരാജ്ഞി, ദില്ലിയിലെ ബൈലി എന്നിവർ അദ്ദേഹത്തെ സ്വീകരിച്ചതായി പറയുന്നു.

# യാത്രോപാധികൾ

ബ്രിട്ടീഷുകാരുടെ ഭരണത്തിന്റെ നല്ല വശങ്ങളിൽപ്പെടുന്നു, അവർ നടപ്പാ ക്കിയ ഗതാഗതസൗകര്യം റോഡുകൾ നിർമ്മിക്കുകയും യന്ത്രവാഹനങ്ങൾ അവ

# JOURNAL of dbct



ചെയ്തു. മാത്രമായിരുന്നിടത്ത് തരിപ്പിക്കുകയും കടത്തുവള്ളം ബോട്ടും, തീബോട്ടും, തീവ ിയും കാറും പ്രത്യക്ഷമായി. എങ്കിലും കേരളം വിട്ടുള്ള യാത്ര ഭീതിദമായിരുന്നു. തീർത്ഥയാത്രകളിലാണ് കൂടുതലും ദേശം വിടേ ിവ ന്നത്. പ്രധാനപ്പെട്ട ലക്ഷ്യസ്ഥാനങ്ങൾ കാശി, രാമേശ്വരം, വാരണാസി, ശ്യംഗേരി, മധുര, മൂകാംബി, പഴനി തുടങ്ങിയവയായിരുന്നു. വെണ്മണിക്കവിക ളുടെ സഞ്ചാരഭ്രമവും കവിത്വവുമാണല്ലോ യാത്രാ കാവ്യങ്ങളുടെ രചനയ്ക്ക് നിദാനം. കേരളീയരെപ്പോലെ സഞ്ചാരത്വര ഇത്രയേറെയുള്ള മറ്റൊരു ജനത ാകുകയില്ലെന്നാണ് എം. മുകുന്ദന്റെയും അഭിപ്രായം. ഉ

ചങ്ങരം കോത കൃഷ്ണൻ കർത്താവ് 'രാമേശ്വരയാത്ര'യിൽ തീവ ിയെ ക്കുറിച്ച് 'കോടക്കാർവേണിയെപ്പോലെഖിലജനമനം കട്ടുപുഷ്ട്യാവിളങ്ങിയ' വളരെ സാമർത്ഥ്യമുള്ള ഗണികയെന്ന് ഉൽപ്രേക്ഷിക്കുന്നു. 'കുഭകോണ യാത്ര'യിൽ 'ഒടുവിൽ' തീവ ിയെ കഥകളിയിലെ കരിവേഷമായി സങ്കല്പി ക്കുന്നു. 'ഭൂവമ്പും പടി യന്ത്രമാക്കിയ കിരീടത്തെധരിച്ചുഗ്രമാം തീവ ിക്കരിവേ ഷമൊന്നിളകിയാടിയോടും വിധൗ' എന്ന് കെ. സി. നാരായണൻ നമ്പ്യാർ മദി രാശി യാത്രയിൽ തീവ ിയെ അനന്തനായി കല്പിക്കുന്നു.

''നന്നേ നീളം പെരുത്തുള്ളുടലൊടുമവനീഭാരമാർന്നാ ശിരസ്സിൽ തന്നേ കത്തിജ്വലിക്കും മകുടമൊടെതിരില്ലാത്ത വല്ലാത്ത പോക്കും പിന്നേ സൽക്കീർത്തിമാനായിട്ടുമിവനെ വഹിക്കുന്നതും നന്നു ശങ്കി ക്കുന്നേൻ തീവ ി ഭോഗീശ്വരസദൃശതയാനന്തനാം ഹന്തനൂനം'' കരിവ ിയെക്കുറിച്ച് അത്ഭുതവും ഭയവും നിറഞ്ഞ വീക്ഷണമാണ് കവി കൾ പുലർത്തുന്നത്. യാത്ര സുകരമാക്കുന്നതിൽ കവിക്ക് സന്തോഷമു ്. കൂടാതെ യാത്രകൾ വഞ്ചിയിലും തീവ ിയിലും ജടുക്കയിലും കാൽനട യായും ഉ ്.

രാജാക്കന്മാരുടെ യാത്ര ചിട്ടയോടുകൂടിയതായിരുന്നു. യാത്രാമാർഗ്ഗങ്ങളെ ക്കുറിച്ചും എത്തുന്ന സമയത്തെക്കുറിച്ചും മുൻകൂട്ടി അറിയിക്കുന്നു. അതാതു നാട്ടിലെ രാജാക്കന്മാരോ, അവർ നിയോഗിക്കുന്നവരോ വന്ന് സ്വീകരിച്ച് താമസ ത്തിനും ഭക്ഷണത്തിനുമുള്ള ഏർപ്പാടുകൾ ചെയ്തുകൊടുക്കുന്നു. അതാതു സ്ഥലങ്ങളിലെ പ്രധാനകാഴ്ചകൾ കാണുന്നതിനൊപ്പം മീറ്റിംഗുകളിൽ സംബന്ധി

# JOURNAL of dbct



#### Volume 4(2), September 2017

ക്കുകയും കുഞ്ഞുങ്ങൾക്ക് പേരിടുകയും വൃക്ഷത്തൈകൾ തങ്ങളുടെ പേരിൽ നടുകയും ചെയ്യുന്നു. ധാർമ്മിക ചക്രവർത്തി മൂലം തിരുനാൾ തിരുമനസ്സി ന്റെയും പരിജനങ്ങളുടെയും ഉത്തരയാത്രയിൽ ഒരു തീവ ി തന്നെ അവരുടെ യാത്രയ്ക്ക് പ്രത്യേകമായി ഏർപ്പെടുത്തിയിരിക്കുന്നു. കെ. സി. കവി സമാജത്തി നുപോയത് ബോട്ടിലായിരുന്നു. തിരികെ വരുമ്പോൾ കായലിൽ വച്ച് പെട്ടെന്നു

ായ ഇടിയും മഴയും മൂലം ബോട്ട് കരയ്ക്കടുപ്പിച്ച് മഴ വിട്ടപ്പോഴാണ് വീ )0 യാത്ര ആരാഭിച്ചത്. കെ. എം പണിക്കരുടെ 'കടലിൽ പോയപ്പോൾ' എന്ന കവിത യിൽ ര ാം ലോകമഹായുദ്ധത്തിനിടയിൽ ബ്രിട്ടണിൽ നിന്ന് നാട്ടിലേക്കുള്ള യാത്രയിൽ ജാപ്പ് വിമാനങ്ങൾ കപ്പൽ ബോംബിട്ടു തകർക്കുന്നു എങ്കിലും കവി അത്ഭുതകരമായി രക്ഷപെടുന്ന വിവരമാണ് രേഖപ്പെടുത്തിയിരിക്കുന്നത്. ഇംഗ്ളീഷ് 'യാത്രാചരിത'ത്തിൽ കാട്ടാരത്തിൽ ശങ്കുണ്ണി കമ്പനിക്കാരുടെ ബോട്ടുകളുടെ ശോചനീയാവസ്ഥ വിവരിക്കുന്നതിലൂടെ വിദേശഭരണത്തോടുള്ള നീരസം വെളിപ്പെടുത്തുന്നു. ചങ്ങരം കോതയുടെ രാമേശ്വരം യാത്രയിൽ തീവ ിയും കാത്ത് രാത്രി മഞ്ഞത്ത് കുത്തിയിരുന്നതും രാമേശ്വരത്തേക്കുള്ള ബോട്ടിനു കാത്തുനിന്നതും വിവരിക്കുന്നു ്. തീവ ിയിലെ തിരക്കുകൊ കഷ്ടപ്പെടുന്നതിനെ നടുവത്തച്ചനും, ഒടുവിലും വിവരിക്കുന്നു ്. കുഭകോണ ി മാറിക്കേറുന്നതിലെ ക്ളേശത്തേയും ജലപ്രളയത്തിൽ പാള യാത്രയിൽ തീവ പരാമർശമു ്. ഒരു ത്തിനു വന്ന കേടിനെക്കുറിച്ചും വനസഞ്ചാരത്തിൽ തീവ ിപ്പൈതലായ ട്രാമിൽ സഞ്ചരിക്കുന്നതിനെ വിവരിക്കുന്നു. തടികൾ കുന്നിനു താഴേയ്ക്കെത്തിക്കുവാനും സാമാനങ്ങൾ മുകളിലേക്ക് കയറ്റുവാനും ിയാണ് ട്രാം ഉപയോഗിക്കുന്നത്. വേ

''മാറ്റിത്തം പറ്റിയാടാൻ വഴികളിൽ നടകൊ ീടുമാൾക്കാരെയെല്ലാം മാറ്റിത്തക്കത്തിലൊന്നാം റെയിൽ വഴി തടിയിൻ വ ി താഴത്തു തള്ളും കാറ്റിൻവേഗാലിറങ്ങുന്നതിനുടെ വലിവാൽ മറ്റു മാർഗ്ഗത്തിലൂടെ

ചീറ്റിക്കേറും കയറ്റിൽ മറുതലയിലണച്ചുള്ള സമാനവ ി.''

പൂരപ്രബന്ധത്തിൽ വാലന്മാർക്കു കള്ളുകുടിക്കാൻ പണം കൊടുത്ത് വള്ളമിറക്കിച്ചതും, രാത്രി കിടക്കാൻ ബുദ്ധിമുട്ടി സ്ഥലം കരെ ത്തിയും രാത്രി മഴയിൽ പെട്ടു വിഷമിച്ചതും ചിത്രീകരിക്കുന്നു.



''കളിയാടിയിരുന്ന മൂട്ടയോടും കിളിയോടും ചില കട്ടുറുമ്പിനോടും കുളിരോടുമെണീറ്റു യാത്രചൊല്ലിക്കളിയല്ലായവിടുന്നു പോന്നു പിന്നെ'' ഇങ്ങനെ അക്കാലഘട്ടത്തിലെ യാത്രോപാധികളേയും യാത്രാദുരിതങ്ങ ളേയും പൂർണ്ണമായി പ്രതിഫലിപ്പിക്കുന്നു യാത്രാകാവ്യങ്ങൾ.

# സ്ഥലപുരാണം

യാത്രാകവികൾ കേരളത്തിനകത്തും ഭാരതത്തിനകത്തും നടത്തിയ യാത്ര കളെക്കുറിച്ചാണ് പ്രധാനമായും വിവരിക്കുന്നത്. കേരളത്തിനകത്ത് ഷൊർണ്ണൂർ, കോഴിക്കോട്, ചാലക്കുടി, തലശ്ശേരി, തൃശ്ശൂർ, ഗുരുവായൂർ, ഏറണാകുളം, കൊച്ചി, കോട്ടയം, അമ്പലപ്പുഴ, വൈക്കം, കൊല്ലം, വർക്കല, തിരുവനന്തപുരം, ശുചീന്ദ്രം, കന്യാകുമാരി എന്നീ പ്രദേശങ്ങൾ യാത്രാകവികൾക്ക് പ്രിയങ്കരങ്ങ ളാണ്. കേരളത്തിനു പുറത്ത് ഈറോഡ്, നാഗർ കോവിൽ, തൃശ്ശിനാപ്പള്ളി, കാഞ്ചീപുരം, ശ്രീരംഗപട്ടണം, മധുര, പഴനി, മദ്രാസ്, രാമേശ്വരം, ബാംഗ്ളൂർ, മൈസൂർ, പൂന, ബോംബെ, അഹമ്മദാബാദ്, അയോദ്ധ്യ, കുരുക്ഷേത്രം, ഉജ്ജ യിനി, ഗയ, ആഗ്ര, ദില്ലി, പഞ്ചവടി, കാശി, ഹരിദ്വാർ എന്നിങ്ങനെയുള്ള പ്രദേ ശങ്ങളാണ് പ്രധാനമായും യാത്രാസ്ഥലങ്ങളാകുന്നത്.

യാത്രയിൽ എത്തിപ്പെടുന്ന സ്ഥലങ്ങളെക്കുറിച്ചുള്ള യഥാതഥവർണ്ണനകൾ യാത്രാകാവൃങ്ങളുടെ പ്രത്യേകതയാണ്. തീവ ി സ്റ്റേഷനുകളിലും നഗരങ്ങ ളിലും ഉത്സവസ്ഥലങ്ങളിലും വഴിയുടെ ഇരുവശങ്ങളിലുമുള്ള കച്ചവടസ്ഥലങ്ങ ളേയും അവിടെയുള്ള വില്പനച്ചരക്കുകളേയും വിശദാംശങ്ങൾ സഹിതം വർണ്ണിക്കുന്നു. ആശുപത്രി, കോടതി, കോളേജ്, ഓഫീസുകൾ, പാഠശാലകൾ, മ്യൂസിയം, കാഴ്ചബംഗ്ളാവ്, നക്ഷത്രബംഗ്ളാവ്, ലൈറ്റ്ഹൗസ്, രാജമന്ദിരങ്ങൾ, സായ്പന്മാരുടെ ബംഗ്ളാവുകൾ, പാർക്ക്, തോട്ടം, പുരാണപ്രസിദ്ധങ്ങളായ സ്ഥലങ്ങൾ, കോട്ടകൾ, ടാജ്മഹൽ, പുണ്യതീർത്ഥങ്ങൾ ഇവ സന്ദർശിക്കുന്നു യാത്രാകവികൾ. യാത്രാകാവ്യങ്ങളിൽ കച്ചവടസാധനങ്ങളെക്കുറിച്ചുള്ള വിവര ണങ്ങൾ സുദീർഘവും സുലഭവുമാണ്. ഭക്ഷണവസ്തു, പിഞ്ഞാണം, പാത്രം, പിച്ചളപ്പാത്രം, അലൂമിനീയപ്പാത്രം, ആഭരണപ്പെട്ടി, പലചരക്ക്, അലങ്കാരവസ്തു, വിളക്ക്, ആയുധം എന്നിങ്ങനെ എല്ലാത്തരം വസ്തുക്കളുടെയും ശേഖരങ്ങൾ



# JOURNAL of dbct

നിറഞ്ഞ കടകൾ പലസ്ഥലങ്ങളിലു ്. ചങ്ങരം കോത കൃഷ്ണൻ കർത്താവ് രാമേശ്വരയാത്രയിൽ ഒരു കടയിൽ കാണുന്ന വസ്തുക്കളിവയാണ്.

''കുപ്പിക്കിണ്ണം കളിക്കോപ്പുകളരിയമഷിക്കുപ്പി കോപ്പീവെടുപ്പാം കാപ്പിപ്പാത്രം മരപ്പമ്പരമമലമണിച്ചെപ്പു ചീർപ്പും ചെരിപ്പും ഡെപ്പിക്കൂട്ടം പൊടിപ്പും പല പൊലിമയെഴും തൊപ്പിയും കപ്പുസോപ്പും നല്പിട്ടേറും ഗൊളോപ്പിന്നിരയുമമരുമാഷാപ്പു ക നേസംഖ്യം''.

കെ. സി. കേശവപിള്ളയുടെ 'ശ്രീ കാശിയാത്ര'യിൽ ബോംബെ വിക്ടോ റിയ ഗാർഡനിലെ കാഴ്ചബംഗ്ളാവിലെ മൃഗക്കൂട്ടങ്ങളെ വർണ്ണിക്കുന്നു.

''ഊറ്റപ്പെട്ടുള്ള സിംഹം, പുലി കരടികൾ തൊട്ടുള്ള നാനാമൃഗസംഘം ചീറ്റം ചേരും പെരുമ്പാമ്പുകൾ ബഹുവിധ സൽപക്ഷി വൃന്ദങ്ങളേവം അറ്റംവിട്ടുള്ള ജന്തുക്കളെയുമുരുലതാവൃക്ഷസംഘങ്ങളേയും മുറ്റും കുതൂഹലം പൂ വിടമതിൽ നടന്നൊക്കവേ നോക്കിഭൂപൻ'' വിസ്മയാവഹമായ ടാജ്മഹലിന്റെ വശ്യതയിൽ അദ്ദേഹം ആമഗ്നനാകു കയും ചെയ്തു.

''നാനാപുഷ്പാദിരമ്യ പ്രഭകൾ കലരുമാരാമമധ്യത്തിലുദ്യ ന്നാനാവൈചിത്ര്യസൽഗോപുര മുഖരുചിരം ചന്ദ്രധാവള്യരമ്യം മാനാതീത പ്രകാശം തടവി വിലസുമക്കല്ലറയ്ക്കുള്ളതാമ ന്യൂനാലങ്കാരമോരോന്നഥ നൃപനതുലം ക ുകൊ ാടിയേറ്റം''

ശ്രീരംഗം ഹോട്ടലിലെയും കൊല്ലം ക്ളബ്ബിലെയും ഊണിന്റെ അവ സ്ഥയും ചങ്ങരംകോതയുടെ 'രാമേശ്വരയാത്ര'യിലു ്. ഹോട്ടലുകളിലെ ഭക്ഷണം വളരെ പരിതാപകരമാണ്.

''സാമ്പാറും പലപച്ചിലക്കറികളും നെയ്യും പരിപ്പും മല ഞ്ചേമ്പുപോലുള്ളുപദംശവും ചെറുതശിച്ചാലോവമിക്കും ദൃഢം ഞാമ്പാരം തകൃതിക്കു കൂട്ടിയുരചെയ്തിടുന്നതല്ലേതുമി

ന്നമ്പാ പാർക്കുകിലിപ്രകാരമൊരു നാളു ോർമ്മയില്ലേതുമേ''

ഏബ്രഹാം പോളിന്റെ 'യാത്രാചരിത്ര'ത്തിൽ നവോഢ സഞ്ചരിക്കുന്ന തോണി കുമാരനാശാന്റെ മണ്ഢപത്തിന്റെ അരികിലെത്തുന്നു. ആശാന്റെ ദുര ന്തമൃത്യുവിന്റെ സ്മരണയിൽ കൃതിനാമങ്ങൾ ഒന്നൊന്നായി വിടരുന്നു.



''ഹാ പുഷ്പമേ തവദളാർപ്പിതമന്ത്യാഹാര മോർപ്പാവതോ? 'നളിനി' വാടി വിളർത്തുവീണോ! ചെല് പൊങ്ങിടും കവിമണേ! തവലീലയെല്ലാ മുൾപ്പൂകരിഞ്ഞു 'കുയിലോ'ർത്തു കരഞ്ഞിടുന്നോ വൻ ദന്തുരൻ കഠിന പല്ലനയന്തകൻ കൈ ബന്ധിച്ചിതോ! പുഴയിലാഴ്ത്തി വലച്ചിതെന്നോ! സ്വാന്തം തെളിഞ്ഞു ചിതമോട് റഡീമറിപ്പോൾ ചിന്തുന്നിതെ! കദനവെൺനുരയാറ്റുവക്കിൽ''

# സാമൂഹികചിത്രങ്ങൾ

യാത്രാകാവ്യങ്ങൾ ആ കാലഘട്ടത്തിന്റെ സാമൂഹിക പ്രശ്നങ്ങളിലേക്ക് വെളിച്ചം വീശുന്നു. യാത്രികകവികൾ സുഹൃൽസംവാദങ്ങളിലൂടെയും ദൃശ്യ വർണ്ണനകളിലൂടെയും സമകാലിക ചിത്രങ്ങൾ ഉന്മൂലനം ചെയ്യുന്നു. ജാതീയമായ ഉച്ചനീചത്വം, ജന്മിത്തവ്യവസ്ഥയുടെ അപചയം, അന്ധവിശ്വാസ പ്രചുരത, തൊഴിലില്ലായ്മ, സുദൃഢമായ ആസ്തിക്യം, മദ്യാസക്തി, ദാരിദ്ര്യം, ഉത്സവ പ്രതിപത്തി, പരിഷ്കൃതിയോടുള്ള രാഗദേഷ ബന്ധം, ഇംഗ്ളീഷ് വിദ്യാഭ്യാസ ത്തിന്റെ വ്യാപനം, സ്വരാജ്യസ്നേഹം ഇവയെല്ലാം പ്രത്യക്ഷമാകുന്നു.

കേരളത്തിലെ തൊഴിലില്ലായ്മ പ്രശ്നത്തെക്കുറിച്ച് എം. കെ. പന്തായിൽ ബോധവാനാണ്. വളരെ അപകടം പിടിച്ച ഖനിയിൽ തൊഴിലിനുവേ ി ആയിര ക്കണക്കിനു കേരളീയരാണ് എത്തിച്ചേർന്നിരിക്കുന്നത്, എന്ന് 'കോലാർ വിശേഷ'ത്തിൽ പറയുന്നു.

''ഇത്തരം ധാതുക്കളെല്ലാവും ഭാരത മാതാവിൻ ഗർഭത്തിലുള്ളതൊന്നും മക്കളാം നമ്മൾക്കു കാണുവാൻ തൊട്ടീടാ ന്നൊക്കില്ലെടുക്കാനും ശീമക്കാർക്കേ വിട്ടിട്ടു പൊട്ടന്മാർ നാമെന്നും പട്ടിണി പ്പാവങ്ങൾ കേവലം കൂലിക്കാരാം''.

'അഷ്ടമിയാത്ര'യിൽ നടുവത്തച്ഛൻ 'നമ്പൂതിരി' സമാജത്തിന്റെ പ്രവർത്തനങ്ങളെക്കുറിച്ച് അപ്പൻ തമ്പുരാന് നിർദ്ദേശം കൊടുക്കുന്നു. തൊഴി



ലിന്റെ മാഹാത്മ്യം തിരിച്ചറിയേ കാലമായി എന്നും നല്ല പഠിപ്പും ജീവിതവിജ യവുമാണ് വരും തലമുറയ്ക്ക് വേത് എന്നും പറയുന്നു. സ്ത്രീധനത്തെക്കു റിച്ച് വ്യക്തമായ കാഴ്ചപ്പാടുവേണം – അതിന്റെ വ്യവസ്ഥകൾ നൃപർ തീരുമാനി ക്കണം എന്നും അഭിപ്രായപ്പെടുന്നു.

'യാത്രാചിത്ര'ത്തിൽ ഏബ്രഹാം പോൾ മദ്യത്തിനടിമപ്പെട്ട ഒരു മനു ഷ്യന്റെ മോശമായ അവസ്ഥ ഉദാഹരിച്ച് ഒരു വൃദ്ധൻ ചെറുമകനെ ഉപദേശിക്കു ന്നു.

''ദുർമോഹമക്രമമനീതി, യസത്യമാന്ധ്യം സൻമാർഗ്ഗദോഷമുരുകൻമഷ വിപ്രലബ്ധി ഭീമാപരാധമവമാന മിവയ്ക്കടിക്ക ല്ലീ മദ്യമെന്ന പരമാർത്ഥമറിഞ്ഞിടേണം''

ദരിദ്രബാലകൻ യാചകരായി നടക്കുന്നതും, എറിഞ്ഞുകൊടുക്കുന്ന നാണയത്തുട്ടുകൾ മുങ്ങിയെടുക്കുവാനായി തവളകളെപ്പോലെ കായൽവെള്ള ത്തിൽ നീന്തുന്നതും, ആർദ്രതയോടെ കവി കാണുന്നു. 'രാമേശ്വരയാത്ര'യിൽ പലതരം രോഗത്തിൽപ്പെട്ടുഴലുന്ന മനുഷ്യരെ യാചകരായി വഴിയിൽ കാണുന്നു.

'യാത്രാചരിത'ത്തിൽ കൊട്ടാരത്തിൽ ശങ്കുണ്ണി തലശ്ശേരിയിലെ ഭാഷാപോ ഷിണി സഭയെ വർണ്ണിക്കുമ്പോൾ ഹിന്ദുക്കൾക്കും കൃസ്ത്യാനികൾക്കും വേറെ വേറെയാണ് ഭക്ഷണവും താമസവും ഒരുക്കിയിരിക്കുന്നതെന്ന് ചൂ ിക്കാണിക്കു ന്നു.

ഇംഗ്ളീഷുകാർ അവതരിപ്പിച്ച പുതിയ പരിഷ്കാരങ്ങളോട് പരിചയം സ്ഥാപിച്ചിട്ടില്ലാത്ത ഈ യാത്രാകവികൾക്ക് നഗരങ്ങളിലേക്കുള്ള യാത്രകൾ അത്ഭുതത്തെ നൽകി. വൈദ്യുതദീപങ്ങൾ, ഗ്യാസ് ലൈറ്റ്, തീവ ി, കാർ, തീബോട്ട്, ഐസ്, ഇംഗ്ളീഷ് വാക്കുകളുമായുള്ള ബന്ധം, കോടതി, ആശുപത്രി, ടെലഗ്രാം ഓഫീസ്, സ്കൂൾ, കോളേജ്, മ്യൂസിയം ഇവയെല്ലാം കവികളുടെ ശ്രദ്ധാകേന്ദ്രങ്ങൾ തന്നെ. കുംഭകോണയാത്രയിൽ പുതുതായി തീർത്ത പാളങ്ങ ളിലൂടെ തീവ ി മന്ദം സഞ്ചരിക്കുന്നതിനെക്കുറിച്ച് കവിയുടെ അഭിപ്രായമിതാ ണ്.

''ര ാഴ്ചയ്ക്കു ഗതാഗതത്തിനതിനാൽ വൈഷമ്യമായീ മുറ



യ്ക്കു ാക്കി പുതുതായ മാർഗ്ഗമതുറച്ചിട്ടില്ല വേ ുവിധം കു ാമ ിഭയന്നു മന്ദാഗതിയായ്പ്പോകുന്നതിക്കാരണം

കൊ ാകുന്നു, നവീന പദ്ധതികളിൽ സൂക്ഷിച്ചുപോകേ യോ?'' തീർത്ഥാടന കാവ്യങ്ങളുടെ സുലഭത കേരളീയരുടെ ആസ്തിക്യബോധ ത്തിന്റെ തെളിവാണ്. ക്ഷേത്രോത്സവങ്ങളും അവർക്ക് പ്രിയമാണ്. വെൺമണിമ ഹൻ പൂരക്കാഴ്ച ക ് യാത്രയാകുന്നത് സംഗമേശോത്സവത്തിൽ പങ്കെടുക്കു വാനാണ്. കുംഭകോണയാത്രയിൽ 'ഒടുവിൽ' അവിടത്തെ ഉത്സവത്തിൽ പങ്കെടു ക്കുന്നത് അവതരിപ്പിക്കുന്നു.

'യാത്രാചരിത'ത്തിൽ കൊട്ടാരത്തിൽ ശങ്കുണ്ണി കോട്ടയത്തുനിന്നു തിരുവ നന്തപുരത്തേക്ക് യാത്ര ചെയ്യാൻ വേ സൗകര്യമില്ലെന്നു പറയുമ്പോൾ ബ്രിട്ടീഷ് ഭരണത്തെ ഭംഗ്യന്തരേണ വിമർശിക്കുന്നു.

''വഞ്ചിക്കു നാഥരുടെ നൽത്തിരുനാളിനെത്താൻ

വഞ്ചിക്കുതാനിവിടെ നിന്നു ഗമിച്ചിടേണം

വഞ്ചിക്കുമായതുവശാൽച്ചിലരേറ്റമുൾപ്പൂ

വഞ്ചിക്കുവാൻ വിരുതരാണവർ കമ്പനിക്കാർ''

കെ. സി. നാരായണൻ നമ്പ്യാരുടെ 'മദിരാശിയാത്ര'യിൽ കോരപ്പുഴയിലെ സൂര്യോദയ വർണ്ണന ജന്മഭൂമിയോടുള്ള സ്നേഹാദരവും ഇംഗ്ളീഷുകാരോടുള്ള എതിർപ്പുമായി രൂപം മാറുന്നു.

''ഏവം ചിന്തിച്ചുറയ്ക്കുംപൊഴുതു ഗഗന സംസ്ഥാനമെല്ലാം ഭരിക്കും ഭാവം കൈക്കൊ ു ചന്ദ്രധ്വരയവധി കഴിഞ്ഞപ്പൊഴേ കപ്പൽകേറി ആ വിദ്വാൻ സൂര്യസായ്പാം പുതിയ ഗവർണരും വന്നു കുന്നിൽ കരേറീ ട്ടീ വിശ്വം ചുട്ടെരിപ്പാനനവധി കരമേല്പിച്ചു കല്പിച്ചുകൂട്ടി''.

പല യാത്രാകാവ്യങ്ങളിലും അനുദിനജീവിത വ്യവഹാരത്തോട് ബന്ധ പ്പെട്ട ആംഗലപദങ്ങളുടെ തത്സമങ്ങളും, തത്ഭവങ്ങളും ഉപയോഗിച്ചു കാണുന്നു. ഈ വിലക്ഷണ കാവ്യശൈലിക്ക് പ്രേരകമായി കവികളുടെ മേൽ സമ്മർദ്ദം ചെലുത്തിയത് അക്കാലത്ത് പ്രചാരം നേടിവന്ന ഇംഗ്ളീഷ് വിദ്യാഭ്യാസ സമ്പ്രദാ യമാണ്.

''ഒട്ടും കേടുവരാത്ത കാലുറകളും ബൂട്സും മഹാജോറെഴും



ഷർട്ടും നല്ലൊരു കോട്ടുമൊത്തൊരു തലപ്പാവും പൊടിപ്പട്ടയും ബൽട്ടും പിട്ടുകലർന്ന പൊന്നൊരടിലാർപ്പെട്ടോരു വാച്ചുംപരം ഗിൽട്ടു മറ്റുമണിഞ്ഞമർത്യരെയതിൽക്ക േൻ കണക്കെന്നിയേ''. ഇങ്ങനെ സമകാലീന സമൂഹത്തിന്റെ സാംസ്കാരികതയുടെ എല്ലാതലങ്ങ ളും യാത്രാകാവ്യങ്ങളിൽ പ്രത്യക്ഷപ്പെടുന്നു.

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1. Title page with affiliation and6. Results and Discussion

email of corresponding author

- 2. Abstract
- 3. Keywords
- 4. Introduction
- 5. Materials and Methods

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Author's Initials Surname. *Journal*, **year**, volume, *issue*, page no. (without prefixes like Dr./ Prof. etc.) MM Youle; DA Hawkins; P Collins; DC Shanson; R Evans; N Oliver; Lawrence A. *Lancet*, **1988**, 2, 341. **A book** 

# Author's Initials Surname. Title, Edition, Publisher, Place of publication, **Year of publication**; page no. RL Ashley. In Laboratory Diagnosis of Viral Infections, 3rd ed., Marcel Dekker, New York, 1999; pp. 489-513.

#### A thesis

Author's Initials Surname. MSc/PhD/DSc thesis, University (town, country, year of publication). RJ David. PhD thesis, Edinburgh University (Edinburgh, UK, 1998). **Patents** 

Patents: AB Inventor1, CD Inventor, (Holder), Country Code and patent number (Registration year).

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