St. Agnes College Mangalore

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ST. AGNES COLLEGE MAGAZINE

1970



ST. AGNES COLLEGE

MAGAZINE

1970

50th YEAR

THE APOSTOLIC CARMEL, MANGALORE

Contents

		Page
Editorial		
The Centenary of the Apostolic Carmel 1870—1970		i
Annual Report for 1969—70	*Principal*	3
University Examination Results		8
Ranks secured in the University Examinations, April 1969		9
Award of prizes (1968—1970) Academic		9
The Essence of Beauty	*Prafulla Prabhu, Palimar*	11
A Short History of Mathematics	*Veeda Rasquinha*	15
Symposium: "Man on the Moon" Apollo 11	*H. Jyothi Prabhu*	18
The Lunar Special	*Goretti Rasquinha*	20
The Life Stream	*Muktha Baliga*	23
The Blue Print of Physical Life	*Meera Achar, B.*	27
DNA Replication	*Prafulla Bai, G.*	31
Genetic Abnormalities	*Muktha Baliga, B.*	34
The Land of my Dreams	*Norma Saldanha*	37
Zoology Study Tour	*P. C. Pushpa & Geetha R.*	38
Time! The Great Inexorable Factor	*Nirmala Lobo*	41
The Crafty Craftsman	*Nilima Udiavar*	43
First Diwali away from Home	*Vikneswari Parampalam*	46
Love Thy Neighbour	*Shalini Shanbhogue*	47
Wild Life in East Africa (Tanzania)	*Soosamma Samuel*	48
The College Student: A Mischievous Machine	*Lena Mascarenhas,*	50
Stepping In.....Stepping Out	*Flavia Dias*	51
Hero with Haemophilia	*Shreemanthini Shenoy*	52
College Yesterdays	*Olga Noronha*	56
Theories of Colour Vision	*Amrith Noronha*	64
The Phenomenon of Colour Blindness	*Olga Noronha*	68
A Cripple's Wish	*Olga Noronha*	72
"Teens" and Humour		73
Employment and the Common Man	*Magdalene Pinto*	75
The Green Years Begin?	*D. Sulatha*	79
The Governor Rubber-stamp or Ruler?	*M.Vijayalakshmi*	84
Scope and Use of Mathematics	*Kanthi Kumari*	87
The Planning Forum 1969—70	*Chrysle Farias*	90
'The Plan and the Common Man'		91
ಸೋದರಿ ನಿವೇದಿತಾ	*Prabhavathi*	95
ಅಂದು ಇಂದು	*Pushpalatha Suvarna*	97
ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಅಶಿಸ್ತು	*C. R. Vijayalakshmi*	98
ಮಾತೆಯ ಖ್ಯಾತಿಯ ರಕ್ಷಣೆ	*Sulochana, B.*	100
ಗಾಂಧಿ ಮತ್ತು ಅಂತಃಸತ್ವ	*Rekha*	101
ಆಧುನಿಕ ಜಗತ್ತಿನಲ್ಲಿ ಮಾನವನ ನಾಗರಿಕತೆ, ಸಂಸ್ಕೃತಿಗಳು ಅಭಿವೃದ್ಧಿ ಹೊಂದುತ್ತಿವೆಯೇ?	*B. Chandravathi*	102
ಸ್ವಾಮಿ ವಿವೇಕಾನಂದ ಶಕ್ತಿ-ಸಂದೇಶ	*Kamakshi Kamath, A.*	104
ಭಾರತದಲ್ಲಿ ವರ್ಣಭೇದ ನೀತಿ	*B. Sureka Hegde,*	106
अगर आदमी के द्रुम होती	*Nayantara Jndson*	107
जय भारतमाता	*Prafulla Prabhu*	107
ख्रसमस	*Lily Lobo*	108
राही बढ़ते चलना	*Nalini Kamath*	109

Page

i
3
8
9
9
11
15
18
20
23
27
31
34
37
R. 38
41
43
46
47
48
50
51
52
56
64
68
72
73
75
79
84
87
90
91
95
97
98
100
101
102
104
106
107
107
108
109

Editorial

In the aura of the celebration of the Centenary of the Apostolic Carmel to come off at the end of the year, St. Agnes College Magazine 1970 makes its quiet debut, happy to announce that in the session 1970–71, the College will offer Commerce in the P.U.C. to be subsequently carried on to the Degree classes, and that a new Social Service activity will be opened on the premises with a qualified Sister working with mentally retarded children, girls as well as boys.

Running its even pace, months and terms marked by the uneventful round of lectures and examinations, yet enlivened to its finger tips by the extra-curricular activities that have sent the life-giving sap of interest and enthusiasm into every student endeavour, 1970 looks forward with expectant gaze to another great event that will emblazon 1971, when St. Agnes College will pour forth its paean of gratitude for its fifty years of existence.

And while we speed forth Magazine 1970 with its message of joy and goodwill to the students of the past nigh fifty years, conscious that we are entering into the centenary year, we realize how the event is stirring up, the more than eighty A.C. institutions of Education that are dotted over the face of India and Ceylon and further afield. More than to any other activity the Apostolic Carmel has been staunchly devoted to the cause of Education, an object to be proud of especially in the event of the UNESCO lime-lighting Education, by proposing 1970–1971 as the "International Education Year".

We recall with joy that in our dedication to Education we have been true to our noble founders: Bishop Marie Ephrem O.C.D. and Mother Veronica A.C. Foreigners who came to India with the message of Christ, they felt their souls ache at the sight of the utter lack of education of girls especially of the west coast. Jointly, facing untold difficulties, they founded the Apostolic Carmel, an Institute devoted to the education of girls and to Social Work.

Among the thousands of voices that will sing their praise and thank God for the boon of education, St. Agnes College will not be the last and the least, for in her educational endeavour, the A.C. was the first to attempt a Collegiate grade for women, in nurturing St. Agnes College, the FIRST WOMEN'S COLLEGE in South India.

THE CENTENARY OF THE

APOSTOLIC CARMEL

1870 - 1970

On historic ground, where in 1793, Colonel John Campbell withstood the might of the Mysorean army, waging war against the British forces at Mangalore, is a block of buildings called St. Ann's Convent and Schools.

For a hundred years the Sisters residing there have worked in the cause of women's education. In addition to the thousands who have passed out of its portals, must be reckoned the other thousands who have been educated in their schools and colleges all over India and Ceylon. These sisters now famous as the Apostolic Carmel Sisters have a very inspiring and interesting history.

The Institute owes its existence to the joint endeavours of two foreign missionaries: Bishop Marie Ephrem O.C.D. and Mother Veronica of the Passion, both working at Calicut in the early sixties of the last century. Pained by the ignorance of the girls of the west coast, they planned an Institute that would strike its roots deep in the soil of the land and be inspired by the same ideals as those that motivated the Mission under the Carmelites.

A word about the Foundress: Mother Veronica—Miss Sophie Leeves, was the daughter of an English Chaplain to the British Embassy in Constantinople Coming into contact with the Catholic Church in her work for the poor, she entered it and later joined the congregation of the Sisters of St. Joseph of the Apparition where she assumed the name: Mother Veronica of the Passion. Sent out to the Mission of Calicut she realized that it was God's plan that she leave her Order, join a Carmel of the Second Order to imbibe the Carmelite spirit, and then found a Third Order of Teaching Carmelites who could take up the education of girls in the Mission.

Facing untold trials and difficulties on her long Odyssey of ventures she was finally able to sow the seed of the Apostolic Carmel in a little Pyrenean town of France, Bayonne. Here she gathered together those eager young souls who dared to brave everything in order to help in the Missions. The start was made on 16th July 1868. After their novitiate was complete, she sent out in August 1870, the three who formed the nucleus of the Apostolic Carmel in India, one of the number being Sr. Marie des Anges, who later became the 1st Superior General of the Institute.

Travelling in the company of the Sisters of the Second Order from the Carmel of Pau who were to found the first Carmel in India, the three Apostolic Carmel Sisters reached Mangalore on 19th November, 1870. They were received with demonstrations of joy and taken processionally to the Cathedral where Bishop Marie Ephrem awaited them, and after a

solemn Pontifical Mass followed by a "Te Deum" led them to St. Ann's Convent. Here they found already running, a little school attempted by the few Tertiaries of Carmel, provisionally prepared to join and augment the A. C.'s of Bayonne.

The St. Ann's School now received a definite fillip and began its long history of educational endeavour. Days of trial and of much uphill work they certainly were. But to the educators of those days there was comfort in the thought that where they sowed in tears others would reap in joy and exultation. And though within a year two more Sisters arrived from Bayonne, circumstances forced the closure of the Novitiate house at Bayonne. Mother Veronica retired to the Carmel of Pau in 1873, from there to mother the nascent Institute by her incessant prayer for it till her holy death in 1906. In 1873 God called to Himself the founder, Bishop Marie Ephrem. Thrown on its own, the little Apostolic Carmel tried to weather all difficulties, developing now as a purely Indian Institution.

Left at the helm, Mother Marie des Anges faced her role as Superior General with faith and fortitude. It was she who safely piloted the little barque from Carmelite guidance to that of the Jesuits who took over in 1878. Besides the Convent schools at St. Ann's her sway extended also over the convents in Calicut and Cannanore conducted by the Sisters of St. Joseph of the Apparition, as these came over to the Apostolic Carmel.

She watched over the foundations of more schools in Kanara and Malabar, and during her long term of office of 38 years had the happiness as it were, of leading by the hand, almost everyone of the sisters and teachers working in them. To her had been granted the rare privilege of seeing her work perfected stage by stage. Many good vocations came in and thus supplied good members to the community.

The fresh educational endeavours during her term were: theopening of the Sacred Heart High School in Tellicherry in 1886; and that at Dongerkerry in Mangalore in 1887 in answer to the appeal of prominent Brahmin gentlemen of Mangalore. Inaugurated in the jubilee year of Queen Victoria it was called "Victoria Caste Girls' School". 35 years later it was transferred to one of the loveliest spots at Mangalore where it now runs as the "Victoria Ladyhill School, Urwa". In 1890 the Training Department was opened at St. Ann's. Its history has been one of steady progress in spite of departmental regulations ever striking harder. The school turns out not only efficient but enthusiastic workers, of whom many make the noble profession of teaching their life work. In 1899, a primary school was opened on Milagres Church grounds and later transferred to the gifted property of "Marjil" where it continues as "St. Mary's Marjil School".

After the death of Mother Marie des Anges, on April 18, 1909, Mother Aloysia was elected second Superior General of the Apostolic Carmel. She was the first Indian to hold that office and conducted herself in a manner that evidently stamped Heaven's approval on the choice. Mother Aloysia knew that progress is progressive. She marched with the times and her naturally fertile mind devised several schemes to maintain as well as to develop her predecessor's work. The growing strength of St. Ann's High School made it imperative that a new school should be opened. Immediately she set about to acquire suitable grounds. Bendore once meant 'a burnt place' 'a devastated land'. One fine morning in the Michaelmas holidays, the entire teaching staff of St. Ann's High School walked towards Bendore, bent on exploration. Bendore seemed at first sight to be a

singular maze of cottages and boundary walls, kitchen gardens and wells, the least promising place for a school and its numerous requirements on even the most modest scale. It was owned by sixteen proprietors, who had each to be interviewed and dealt with. The number of coconut palms and fruit trees with the high expansive plateau lying behind them all, made the Sisters decide that it was an ideal spot for magnificent school buildings. After going through the cumbersome process of purchasing plot by plot, the corner-stone of the new building was laid on February 3, 1919. The two-storeyed building was completed in the year 1921. When the building was in course of construction, it occurred to the far-reaching and prolific mind of Mother Aloysia that a women's college was equally urgent. She rose to the occasion and discussed the question with those who would be able to enlighten her. The proposal met with much cold water. It seemed too great an undertaking for the frail arms of the Apostolic Carmel. Staff, funds, students, the future, all these, they thought, formed an insurmountable barrier. But Mother Aloysia was not the soul to give in because of material difficulties. The Church needed it, and to her, the inspiration had a divine force. As was her wont, she reflected long and prayed much before coming to any decision but having done so, she did not falter, whatever the obstacles real or apparent, raised by those who surrounded her. This was a principle she adhered to in her every enterprise.

In 1920, the First Intermediate Class was opened in a most unpretentious room, with six students on the rolls and a majority of lay professors on the staff, under the name of St. Ann's College for Women. On July 2nd 1921, the college classes were transferred to the new building at Bendore. It was affiliated as a First Grade College to the Madras University. In 1924, the College was renamed as St. Agnes College. Started in 1920, it became a worthy memorial of the Golden Jubilee of the Institute.

Other ventures followed fast. In 1918 St. Cecily's School, Udipi, and in 1919 Providence Secondary School Calicut, were opened. Both subsequently developed into High Schools. Calls further afield followed. In 1922, two foundations were started in Ceylon at Trincomalee and at Batticaloa; at each place 3 schools, an English School, a Tamil School and an Industrial School run by the Sisters of St. Joseph were taken over. In 1923 a High School run by the German Sisters at Ahmedabad was taken over and continued as Mt. Carmel School. In 1926 two more foundations in Ceylon followed: those of Badulla and Bandarawalla, the former being taken over from the Good Shepherd Sisters, and a little later a fresh foundation was started at Kalmunai. At home, Mother Aloysia got up a fine community house as a recouping place for the Sisters at Ullal where conferences during holidays were a welcome feature. This Institution later developed into Stella Maris School.

The development of educational Institutions by Mother Aloysia cannot eclipse what she was and what she did to the Apostolic Carmel as a Religious Institute. During the time of Mother Marie des Anges the Institute was purely diocesan, Mother Aloysia set her heart on attaining for the Constitutions, at which she had laboured under the guidance of Bishop Perini, S.J., the Pontifical approbation. For years she worked and prayed for this great seal of approval on the Institute and saw her labours blessed by the "Decretum Laudis" conferred by the Holy See in 1926.

Great in mind and heart, the vigour of her rule was tempered by the humble gentleness of her disposition. Her gifts of

strength and serenity struck one and all. Her holiness inspired confidence in all who knew her. The motto of the Institute "Solus Deus Sufficit" was the guiding principle of her life. It was her strong faith and unwavering trust in divine providence that supported her in all her arduous undertakings.

The progress of the Institute from 1928 when Mother Aloysia laid down her office up to today, has been very steady under the able and enlightened guidance of the next 4 Superiors General, both in the development of the Religious spirit of the Institute and in the foundation and stability of educational institutions in most of the States of India, in Ceylon, and further afield in Kuwait and Australia.

Under the able guidance of Mother Josephine the 3rd Superior General, during her 3 terms of office, houses of the Institute were opened in Coondapoor and Kemmanu, 8 more in Kerala, one on the East Coast at Tambaram, Madras, one in Goa and 5 more in Ceylon. In 1940 Mother Josephine attempted the great venture of opening a University College for Women in Patna, the 2nd University College run by the A. C. This opened the way for more houses in the North, those at Gorakhpur, Jamshedpur and Poona following immediately. In 1938 she completed the big undertaking of transferring the Novitiate from St. Ann's to the new Convent at Maryhill built on extensive lands at Bondel far away from the town and its turmoil. In 1943 she opened the L. T. College (now known as B. Ed.) at St. Ann's the only Training College of the Institute.

Frail in body but great in mind, she strongly led the Institute in things of religious perfection, herself a model of dutifulness and affectionate concern for others especially in her devoted attention to the poor.

Under Mother Annunciata no material forward ventures were discernible to the eye, for in her short rule of just 20 months, she was a treasure to the Institute in that she was an embodiment of the humility of a mind truly great, one so gentle that she impressed on others that she was always close to the Heart of God.

When Mother Sylvia took her place for 12 years in 1947, the onward progress of the Institute was ably guided by her. Ceylon opened 7 new houses, the North called for schools and they spread from the north-east to the north-west and could not be satisfied till 13 houses came up and were set on their feet. Goa asked for 3 more foundations, Kerala and Mysore claimed their share, while her crowning achievement was the foundation of Providence College in Calicut in 1955. It was begun first at Providence High School and was later located on a hill outside the town and attached to Carmel Hill Convent. It was Mother Sylvia who first realized the project so far only contemplated, of foreign studies for our Sisters.

Mother Theodosia who is still at the helm, took up her office in 1959. With an eye to the needs of the times, she went in, not for Colleges or High Schools only, but for technical and industrial schools, orphanages and creches and mission stations, all meant to reach out to the poor and needy and the illiterate. One University College however, she did open, the 4th of the institute at Goa where the need for a College for women was imperative. Both arts and science classes were opened in this College in 1963. Schools were also opened in the North till they formed one chain from Jammu and Kashmir in the West, to Assam in the East. But what the Institute especially cherishes are the 3 High Schools for the poor students at Bantwal, Moodbidri and Gangolly. Mission stations

were opened at Kaurapukhur in Bengal, at Alnavar, Halliyal, and Nandakal in Central India and Pavoor and Nanjangud in Mysore, and 2 in Ceylon. Calls from places outside India were heeded and schools opened at Port Blair, in the Andamans, at Kuwait and in Australia; and a footing obtained for social and other activities in the capital of Kerala at Trivandrum.

The following paras will give a summary idea of the works and spirit of the Apostolic Carmel:

Among its 92 institutions are 4 University Colleges, offering arts and science, 1 Graduate Training College, 3 Under Graduate Training Schools, High Schools, Primary Schools, L. P. Schools, Technical and Industrial Schools, Orphanages, Creches, and the latest attempt, a project for the mentally retarded

Blest with a steady flow of many and good vocations, the Institute set itself to the task of giving the young aspirants the best religious training, not only in its own Novitiate but also by sending Sisters to Sister-Formation courses in America and Rome, to Mater Dei in Goa and to Sudeep in Bangalore. Attendance at various seminars was always encouraged while in the Formation House regular courses of study were offered on topics theological, scriptural, doctrinal, catechetical and religious.

Education in secular studies was taken in hand so as to provide efficient teachers to the rapidly growing number of schools and colleges. Not only were large numbers of Sisters asked to graduate from their own colleges and trained in their fown educational institutions but abler ones were sent to secure diplomas in special courses in America and England. Doctrinal and Social Work degrees were secured by those studying in Belgium, Formation Courses were given to those sent to Rome, while a few were also trained in Ireland in Media of Communication.

Concentrating on educational work the first fifty years, interest in social work according to the spirit of their Founders, was gradually roused as Sisters were getting trained in specialized courses, and fresh avenues for work were opening before them. In this connection they received no small fillip from the Decrees of Vatican II especially that on: "The Church in the Modern World" and one on the "Apostolate of the Laity".

Calls on the A. C. for help were always attended to. Thus from the earliest years our Sisters were asked to help in the formation of the religious of other Institutes. They have done this service for a Syrian Carmelite Congregation of Kerala, for the Ursulines of Mangalore, for the Bethany Sisters of Mangalore, for a Diocesan Institute in Goa and currently for another Diocesan Congregation of the Missionary Sisters of St. Therese in Kerala.

Another field in which the Institute rendered great help was that of guiding an infant college by lending one of theirs to be its first Principal. Other fields in which the Institute is now rendering whatever help it can are the following: One Sister is the Secretary of the Xavier Board of Higher Education; 2 Sisters are employed at the Nunciature, Delhi; the Sister Principal and her assistant at Mater Dei Institute Goa are A. C. s; One of theirs is working in the capacity of secretary at the C. B. C. I. One Sister in Mangalore is an active member of the Diocesan Pastoral Council. Another is lent to the Pastoral Institute of St. Pius X at Goa, for Diocesan work. One is helping in the AICUF at Madras, another in the Vocation Centre at Poona while two form the Family Welfare Centre at Mangalore, and one does whole time work for the CYS in Ceylon.

The lead for all this help to further

God's kingdom is given by the Superior General herself, who besides her own heavy task of heading an Institute of 92 houses, is also serving a second term of Presidentship of the CRI (Women's Section). At the C. B. C. I. she is collaborater in her capacity as President of the CRI when questions on women religious are discussed. In Rome she is a member and consultor too of the International Union of Superiors General. The latter office entails a yearly flight to Rome, and absence of quite some time from India. At the Vatican II she was an Auditress at the 4th Session. Under her leadership, besides being a full time teacher, the Apostolic Carmel Sister does not forget that she has to be a Good Shephered in her own surroundings. The Sisters conduct Catechism classes in Parishes, help weak students with their supplementary examinations, visit hospitals and homes of their poorer pupils. They organize active social service projects in their schools and colleges to bring peace and solace to the poor and the sick remembering the words of the Master: "As long as you did it to these, the least of my little ones, you did it unto Me."

In this the Centenary Year of the Apostolic Carmel, let the light of thescintillating lamp, shining on the Apostolic Carmel Crest with its twin flame of "Prayer and Work", shine brighter than ever, telling the story of that sublime motto of the Institute: "Solus Deus Sufficit"—God alone suffices.

Annual Report for 1969-70

The sands of time have run on bringing to a close a decade memorable in several ways and now we see the debut of a new one—the 'Seventies', and we wonder to what new fields it will lead us. Coming closer home, the first event we have to look forward to is the Centenary Celebrations of the Apostolic Carmel in the course of 1970, and in its wake, 1971 will see the Golden Jubilee of our College. Walking down memory's lane, we can recall the names and faces of the innumerable students who have trod the corridors and filled the lecture-halls during the almost fifty years that lie behind us.

Coming to the present, we are happy to welcome into our midst the parents of our students and the friends and benefactors of our College. We do hope you will enjoy yourselves this evening and let us call it a red-letter day in our annals.

We are proud and honoured to have as president of the evening, His Excellency Sri Dharma Vir, Governor of Mysore, who has graciously consented to spend a little time with us.

To you Sir, we bid a most hearty welcome to St. Agnes College.

STRENGTH: As the years pass, the College keeps on adding to its strength; there are 1340 students on roll this year as against 1265 students last year.

STAFF: A well-trained and loyal Staff is one of the best assets of this College. We have welcomed several new members to the Staff in different departments. Among them we may mention the following: Miss Sujata Chakravarthy, M.A., Department of English; Miss P. C. Achamma, M.A., Hindi; Miss K. G. Kunhamma, M.A. and Sri J. Ragaviah, M.A., Economics; Sr. Amabilis, A.C., M.A., Miss Pratibha Devi, M.A., and Miss Sheelavathi, M.A., History; Sri J. Menon, M.A., Politics; Sri P. Divakara, M.A., Psychology: Sr. Salette, A.C. M.Sc., and Miss Moira Mathias, M.Sc. Botany; Miss Aleyamma Augustine, M.Sc., Mathematics; Miss B. Nagaveni, M.Sc., Zoology; Mrs. Annie Chaly, M.Sc.; Physics; Sr. Theodomara A.C. M.Sc., and Miss K. Sudha, B.Sc., Chemistry.

We gratefully acknowledge the services of the following members of the Staff who have left us for other fields wherein we wish them every success: Sr. Pierina, A.C., M.A., Miss I. Meera, M.A., and Mr. Veerappa Gowda, M.A., of the Department of History; Miss Hazel D' Souza, M. A. and Mr. S. N. Saale, M.A., Economics; Mrs. S. Meena Bajpe, M.A., English; Mrs. T. N. Indira Devi, M.Sc. Mathematics; Miss Veera Fernandes, M.Sc., and Miss Krishna Bai L. Rao, M.Sc., Botany; Miss J. Papali, M.Sc., Zoology; Sr. Marie de Sales, A. C., M. Sc., Physics Sr. Immaculata, A.C., M.Sc., and Miss Mohini Sujir, M.Sc., Chemistry.

UNIVERSITY EXAMINATION RESULTS: APRIL 1968–69: Academically speaking, the April

1969 examination has been distinctive. At the Final B.A., examination the percentage of passes was 88.88 with 1 first class and 16 second classes, Josephine Nelly Fernandes securing the III rank. At the Final B.Sc., 86.81% of the students were successful, with 28 in the first class and 30 in the second class, Juliet A. P. Britto securing the I rank and Jane C. Coelho the IX rank. Juliet was awarded a gold medal and a cash prize of Rs. 1000/– by the Government of India Youth Service sponsored by the Ministry of Education. At the first B.A., B.Sc. examination, we had 2 first classes and 11 second classes in Part I—English; in Part II, Kannada, I first class and 22 second classes; in Hindi, 1 first class and 41 second classes; in French, 5 first classes and 5 second classes; in General Science, 16 first classes and 35 second classes; in Social Science, 16 first classes and 37 second classes. The distinctions were: Presana Raman II rank and Mariette Lawis VII rank in Pt. I English; Sanjivini Aigal C., II rank and Pramila Ponnambath III rank in Pt. IV. At the P.U.C. examination the percentage of passes was 65.29 with 25 first classses and 73 second classes.

COLLEGE ACTIVITIES: College life is punctuated with many activities such as inter-class debates and symposia, quiz contests, talks by lecturers from other institutions, film shows, delightful "get-ups," social and intellectual, and, of course, the various excursions. Patricia Lobo of the P.U.C. distinguished herself by securing the first place in the Elocution Competition "Man on the Moon" at the district level for colleges organized by the Lions Club, Mangalore, and Miss Magdalene Pinto of the II B.A. won the same distinction in the Essay Contest. Miss Phyllis Farias and Miss Marina Fernandes of the II B.A. were awarded certificates of merit in the Inter-Collegiate debating contest on "Co-operation" held at Mysore.

The students availed themselves of Gandhi Centenary Year to study the Father of the Indian Nation under his universally acknowledged titles of "Champion of the Weak" and "Apostle of Peace." The year was marked by student symposia and essay contests. A concrete form of its celebration was "Safai Week." The Gandhi Centenary Year Issue of the College Magazine also bore loyal tribute to the Mahatma.

A distinguished visitor to the College was Mr. C. M. Poonacha, Central Minister for Iron & Steel & Heavy Industries. We also say a "thank you" to the following speakers: Dr. Nagaraj, Head of the Microbiology Dept. of K.M.C., Mangalore for his talk on "Bacteria Virus"; Sri M. A. Ramachandra Rao, Principal, Govt. College Mangalore, who presided at a symposium on "Man on the Moon"; Mother Braganza, former Principal of Sophia College, Bombay, who shared her valuable experience with our Staff and students; Mr. Kerala Varma who revealed many hidden aspects of Gandhiji's life; Mrs. U. Ananda who presided at the Independence Day function; and Dr. Morley of the U.S.I.S. for the Seminar on "Dissent and Responsibility".

SCCIAL SERVICE: The Social Service projects of the College are meant to provide the students with the opportunity and training to enable them to keep in step with the wider ideals of the country as envisaged in the National Service Corps programme recommended by the Education Commission. The students work regularly every saturday at the Harijan colony at Kankanady. A visit to the Stella Maris Orpha-

nage at Ullal was one of many others organised outside of their routine annual schedule. Gandhi Centenary Year provided additional chances for safai and service. World Leprosy Day called for even more than usual support. The response from our students betokened their sacrifice, sympathy and sharing with their less fortunate brethren all over the world. Local schemes of the Minicipality and other social welfare agencies also receive the attention and generous cooperation of the League.

THE PLANNING FORUM: Serves to integrate student life with citizenship. Weekly seminars are held where orientation talks and position papers are followed by discussion. Some of the topics treated were—Social Control on Banks, Bank Nationalization; the Draft Outline of the Fourth Plan; Agriculture and the Plan; Industry and the Plan; Mixed Economy; District and State Plans; Resources for the Plan etc.

Two joint inter-collegiate sessions were organized in cooperation with other colleges —one—a Planning Forum seminar on "The Plan and the Common Man" held at St. Agnes, presided over by Mr. K. J. Anthony of the Dept. of Economisc, St. Aloysius College. There were 3 speakers Mr. K. C. Nayar spoke on "Taxation and the Common Man"; Mr. S. Narayanan on "Food Policy and the Common Man"; Mr. Paul Verghese on "Employment and the Common Man".

The other was a joint session of the Planning Forums of the city colleges at which Dr. T. J. Ramakrishnan, Deputy Commissioner, spoke on the District Plan. A quiz was conducted on the Draft Outline of the Fourth Plan.

The Planning Forum does extension work in a close-by Harijan locality, where a recreation centre, with literacy and needlework classes and some citizen training was organized once a week till December. The Planning Forum is now exploring ways of conducting a Socio-economic survey of the District and involvement in the District Plan.

THE NATIONAL CADET CORPS resumed its activities in August 1969. Twenty selected cadets attended the Annual Training Camp at Jayanagar, Bangalore, from Oct. 15 to 25 '69. NCC Day was celebrated on Nov. 7th when 30 cadets took part in the ceremonial parade at the Nehru Maidan under the leadership of Sgt.-Major Rosamma Neeliyara. Cadet-Corporal Blaze Rodrigues was selected for the Mysore contingent to participate in the Republic Day parade at Delhi. Sgt.- Major Rosamma Neeliyara led a platoon of 30 cadets during the Republic Day ceremonial parade at the Nehru Maidan. Fifteen senior cadets and 28 junior cadets are under preparation to take the G Part II and G part I examinations to be held in the last week of February.

ATHLETICS AND SPORTS add a wider dimension to academic training. This year we have been specially blessed with remarkable achievements in this field. Pamela Aranha was the winner in the Table-Tennis (Singles) Tournament organized by the Y.M.C.A. Along with Poornima Thalithaya, she represented S. Kanara in Mysore, and Pamela was selected to represent the Mysore University in Table-Tennis Tournaments at Bombay in October. Our Physical Directress, Miss Zita Aranha, was appointed Manager of the Mysore University Table-Tennis Team.

In Athletics, we secured Team Championship at the City-Level Dasara and

Divisional-Level Dasara Sports in Mysore. Our athletes secured the first places in almost all the events at all the Sports Meets and Jacintha Fernandes won the Individual Championship. We also secured the Team championship in Prof. M.G.S. Zonal Athletics and at the Inter-Zonal Athletic Meet. Jacintha Fernandes was declared the individual champion at both these Sports Meets.

At the South Kanara District Sports Meet, Jessy Pais secured the Individual championship, Poornima Thalithaya won a double sprint and our relay team stood first. Five of our athletes, Jessy Pais, Poornima Thalithaya, Rehena Fernandes Vedavathi Shetty and Judith Lobo were selected to represent S. K. District at the State Games conducted at Bangalore.

Four athletes, Jessy Pais, Jacintha Fernandes, Rehena Fernandes and Vedavathi Shetty were selected to represent Mysore University at the All-India Inter-Varsity Athletic Meet at Baroda.

At Baroda, Jessy Pais won the laurels in high jump. She broke the Inter-Varsity existing thirteen-year record of 1.46 metres and set up a new record of 1.52 metres. She participated in Inter-State National Games at Cuttack and won the Gold Medal in High Jump. We are indeed proud of her, the more so as it is the first time that we have an Inter-University and National champion in Jessy Pais.

Rehena Fernandes secured a third place in High Jump at the All India Inter-Varsity Athletic Meet at Baroda. We have also been the zonal winners in Soft Ball, Volley Ball, Kho-Kho and Table Tennis. In the M.G.S. Inter-Zonals, we were the winners in Soft Ball and runners-up in Volley Ball and Table Tennis.

Five of our students were selected to participate in the State Inter-Varsity Tournments at Bangalore, and the College secured the Team and Individual championships at the Mangalore City Municipal Centenary Memorial Sports and Games.

In conclusion, we are pleased to say that Jessy Pais has been selected for the coaching camp at Simla from where she hopes to proceed to Bangkok for the Asian Games.

EXCURSIONS: Study tours provide a visual addition to one's knowledge. A band of 73 students, in the care of their lecturers, visited North India and saw such places as Agra, Fatehpur-Sikri, Delhi, Jaipur and Mussourie. The III Year Botany and Zoology students went specimen-hunting to Kemmangudi and Sagar respectively; while the History, Psychology and Mathematics students went to Jog, Mysore and Bangalore.

CATHOLIC SERVICE IN THE UNIVERSITY: the Sodality of our Lady and the Legion of Mary contribute to vitalize and intensify the Catholic life of our students. Daily half-hour religion and ethics classes help to foster spiritual and moral values; weekly study-circles deepen doctrinal knowledge; monthly Community Mass and scripture services further active participation in liturgical life; the annual retreat becomes a useful check-up and an incentive and inspiration to nobler living.

Opportunities for service are provided both on the intramural and the inter-collegiate level. Our students are thus trained for lay leadership in the spirit of Vatican II and the All India Seminar on the Church in India Today.

The special features of this year's programme were the collaboration by the C.S.U. Unit of our College in the Cheshire Home Extension and the Work Camp at Katipalla. Two of our students attended the Third National Sodality Convention at Madras. The Legion of Mary works

silently, though effectively, at its apostolate.

THE AGNESIAN ASSOCIATION keeps growing with the years. Composed of former students as it is, it includes a large number of mothers whose daughters are walking the self-same corridors and sitting in the same lecture-halls that they themselves used. What more endearing tie than this to bind them so closely to the Institution! Teachers and taught, old and young, they all meet together on the "Agnesian Reunion Day" as they relive the past.

We are grateful to Mrs. T. J. Ramakrishnan who presided over the annual get-together in November 1969. It was a privilege to have on that day no less eminent a person than Mrs. Louella Lobo Prabhu who gave us a masterly analysis of "Nationalisation of Banks" in the context of the political scene.

While we thank the Association for their yearly drive towards our Midday Meal Fund we also renew our request for their cooperation on behalf of scores of our students who are grateful beneficiaries of their kindness. May we take this opportunity to appeal to you, dear alumni, to help us to usher in, in a fitting and fruitful manner, the Golden Jubilee of St. Agnes College?

EXTENSION SCHEMES: We are glad to announce the completion of the Non-Resident Students Centre. Familiarly known as the NRSC, it is laid out in an idyllic setting with a view extending to where earth and sky meet. It is a long-felt need of the students that has been satisfied. Our athletes too will be delighted with the remodelled tracks and courts that are now ready for their use. We are also happy to say that the new hostel building, under construction now, will be completed soon and commissioned with the new academic year starting in June 1970. We hope to accommodate about 200 students in it. This will enable us to turn the former hostel into additional classrooms which are a necessity in view of the over-increasing number of students.

1970 is International Education Year. For teacher and taught, parents and children, this landmark holds out new challenges and opens fresh avenues for schemes for qualitative education. More meaningful academic training,more creative pursuits for our pupils, more active student participation, greater staff-collaboration and better parent-teacher contact are some of our aims. We appeal to you to help us achieve our goals so that this institution, as it steps on the threshold of a Centenary Year and a Golden Jubilee, may worthily serve our community and country.

Before we end, let me express my grateful thanks first to the Heavenly Father from whom all good things come for his benign watch over us, then to the members of the Staff for their loyal service, to our numerous friends and benefactors and the parents of our students for their help and support in our endeavours, to the many donors to the prize and midday meal fund, to our students for the trust they repose in us, to all here present and lastly to His Excellency the Governor who has singularly honoured us with his presence this evening.

Sr. M. Noelle, A. C.
Principal,
ST. AGNES COLLEGE.

Mangalore,
13—2—1970

UNIVERSITY EXAMINATION RESULTS

APRIL 1969

	Total No. Appeared	I Class	II Class	III Class	Total No. Passed	Percentage of Passes
Final B.A.						
All groups	99	1	16	71	88	88.8
Hist. & Econ.	51	1	7	33	41	80.4
Psy. & Econ.	20	—	6	14	20	100
Psy. & Pol.	28	—	3	24	27	96.4
Final B.Sc.						
All Groups	91	28	30	21	79	86.81
Phy. & Chem.	9	5	2	—	7	77.8 ..
Bot & Zool.	60	11	26	19	56	93..33
Phy. & Maths	22	12	2	2	16	72.73
First Exam. B.A.						
Part I						
English	164	—	5	126	131	79.88
Part II						
Kannada	100	—	8	80	88	88.00
Part II Hindi	64	—	17	44	61	95.31
Part II French	9	3	2	3	8	88.88
Part III Politics	123	—	—	—	112	91.06
English	45	—	—	—	45	100
Part IV Gen. Sc.	172	16	25	87	138	80.24
First Exam. B.Sc.						
Part I English	138	2	6	101	109	79
Part II Kannada	90	1	14	73	88	97.78
Part II Hindi	48	1	24	23	48	100
Part II French	6	2	3	1	6	100
Part III Maths	16	—	—	—	16	100
Chemistry	125	—	—	—	118	94.4
Part IV Soc. Sc.	145	18	37	86	141	97.24
Pre-University						
Whole *Exam.*	314	25	73	107	205	65.29
Part I English	314	—	—	—	259	82.48
Part II All Lang.	314	—	—	—	305	97.14
Part III Physics	153	—	—	—	118	77.13
Part III Chem.	153	—	—	—	113	58.9
Part III Biology	114	—	—	—	108	94.73
Part III Maths.	39	—	—	—	39	97.44
Part III History	160	—	—	—	155	96.87
Part III Econ.	160	—	—	—	139	86.88
Part III Logic	160	—	—	—	146	91.23

The College Union Committee



Student President: Olga Noronha
Vice-President: Norma Saldanha

Secretaries:

Literary & Debating Society:	Kripalini Shastri
Dramatics:	Chinmaya Nayak
Planning Forum:	Chrysl Fariás
History Association:	Prathibha Devi
Economics Association:	Olivia Noronha
Politics Association & Psychology Association:	Amrith Noronha
Mathematics Association:	Iris Coelho
Physical Science Association:	Sudha Nayak
Natural Science Association:	Mirabel Pais
Kannada Association:	Surekha Hegde
Hindi Association:	Vijayalakshmi M.
Social Service League:	Saguna Pai
Indian Music Association:	Ranjini Rao
Western Music Association:	Wilburgha Sequeira

RANKS SECURED IN THE UNIVERSITY EXAMINATIONS APRIL, 1969.



Final B. Sc. Degree
JULIET A. P. BRITTO, *I Rank*
Winner of the university gold-medal & award of Rs. 1000/- from the Ministry of Education and Youth Services.



Final B. Sc. Degree
JANE C. COELHO, *IX Rank*.



First Exam. B. Sc. Degree
SANJIVINI AIGAL, C.
II Rank (*Part IV*)



First Exam. B. Sc. Degree PRASANNA RAMAN, *II Rank* (Part I English)



First Exam. B. Sc. Degree
MARIETTE LEWIS
VII Rank (Part I English)



Final B. A. Degree
JOSEPHINE NELLY FERNANDES
(Sr. Jeromia. B.S.) *III Rank*, Winner of



First Exam. B. Sc. Degree
PRAMILA PONNAMBATH
III Rank (Part IV)

RANKS SECURED IN THE UNIVERSITY EXAMINATIONS

APRIL 1969

Final Exam. B. Sc. Degree

1. Juliet A. P. Britto—I *Rank*
2. Jane C. Coelho—IX *Rank*

MISS JULIET A. P. BRITTO WAS AWARDED A GOLD MEDAL AND A CASH PRIZE OF RS. 1000 BY THE GOVERNMENT OF INDIA, MINISTRY OF EDUCATION AND YOUTH SERVICES.

Final Exam. B.A. Degree

Josephine Nelly Fernandes—*III Rank*

First Exam. B.Sc. Degree: Part I—English

1. Presana Raman—*II Rank*
2. Mariette Lewis—*VII Rank*

Part IV

1. Sanjivini Aigal C.—*II Rank*
2. Pramila Ponnambath—*III Rank*

AWARD OF PRIZES (1968–1970) ACADEMIC

III YEAR DEGREE

B.Sc.	General Proficiency	Sanjivini A.C.
B.A.	,, ,,	Olivia Noronha
B.Sc.	Physics	Sanjivini A.C.
,,	Chemistry	Usha K. N.
,,	Mathematics	Sanjivini A. C.
,,	Botany	Muktha B. B.
,,	Zoology	Muktha B. B.
B.A.	History	Olivia Noronha
,,	Economics	Olivia Noronha
,,	Psychology	Shantheri Pai M
,,	Politics	Shantheri Pai M

II YEAR DEGREE

B.Sc.	General Proficiency	Andrea M. T. Britto
B.A.	,, ,,	Magdalene E. Pinto
B.Sc.	English	Not awarded
B.A.	English Section A	Sr. M. Bonfilia A.C.
	Section B	Magdalene E. Pinto
	Section C	Veronica Gonasalves
B.Sc. and B.A.		
	Kannada	Sureka Hegde B.
	Hindi	Satyaprabha
	French	Magdalene E. Pinto
B.Sc.	Physics	Andrea M. T. Britto
,,	Chemistry	Joan A. M. Mascarenhas
,,	Mathematics	Andrea M. T. Britto
,,	Botany	Bridget F. D'Souza
,,	Zoology	Bridget F. D'Souza
B.A.	History	Magdalene E. Pinto
,,	Economics	Marina Fernandes
,,	Psychology	Surekha Hegde B.
,,	Politics	Vijayalakshmi M.

I YEAR DEGREE

B.Sc.	General Proficiency	Kanthi Kumari B.
B.A.	„ „	Pamela L. Aranha
B.Sc.	English	Not awarded
B.A.	English	
	Section A	Not awarded
	Section B	Pamela L. Aranha
	Section C	Jacintha M. T. Rasquinha
B.Sc. & B.A.	Kannada	Sujatha M. Bhat
	Hindi	Leela V. Iyer
B.Sc.	Physics	Kanthi Kumari B.
„	Chemistry	Leena V. Sequeira
„	Mathematics	Margaret M.D'Souza
„	Botany	Prathima Kini G.
„	Zoology	Prathima Kini G.
B.A.	History	Pamela L. Aranha
„	Economics	Pamela L. Aranha
„	Psychology	Zeena Fernandes
„	Politics	Zeena Fernandes

PRE-UNIVERSITY

Science Sect.; Gen. Proficiency		Asha S.
Arts Section		Shobha P. Rao
Science: English		
	Section A	Patricia A. G. Lobo
	Section B	Sandya B. Nayak
Arts: English		
	Section A	Gratia A. Rodrigues
	Section B	Shobha P. Rao
	Kannada	Shobha P. Rao
	Hindi	Asha S.
	Physics	Patricia A. G. Lobo
	Chemistry	Clotilda R. A. Fernandes
	Mathematics	Asha S.; Clotilda R. A. Fernandes.
	Biology	Geetha Devi M.
	History	Astrid L. Lobo
	Economics	Astric L. Lobo
	Logic	Shobha P. Rao
The S.S.L.C. Prize		Asha S.

SPECIAL RELIGION AND MORAL SCIENCE

Religion	III B.Sc.	Goretti F. M. Rasquinha
	III B.A.	Olivia Noronha
	II B.Sc. & B.A.	Theresa Crasta
		Bridget D'Souza & Marina Fernandes
	I B.Sc.	Gladys J. D'Souza
	1 B.A.	Pamela L. Aranha
	PUC Science	Patricia A. G. Lobo
	PUC Arts	Gratia A. Rodrigues
Moral Science		
	III B.Sc.	Meera B.
	III B.A.	Nalini Bhat M.
	II B.Sc.	Latha K. B.
	I B.Sc.	Shobha K. Nayak
	I B.A.	Sujatha M. Bhat
	PUC Science	Nalini U. Kini
	PUC Arts	Renuka A. K.

EXTRA-CURRICULAR

	III B.A.	Olga Noronha
Theatricals	III B.A.	Kripalini M. Shastri
Distinguished Record of Social Work	III B.Sc.	Saguna Kulyadikar
Prizes awarded for the Gandhi Centenary Essay	III B.Sc.	Norma Saldanha
	III B.A.	Anna F. C. Dias
		Prathibha Devi M.
		Dorothy Sequeira
	II B.Sc.	Clarissa O. Aranha
	II B.A.	Vijayalakshmi M.
	I B.Sc.	Kanthi Kumari B.
Sports:	III Year	Jessy Pais
		Jacintha Fernandes
		Joan Frank
	II Year	Poornima Thalithaya
	I Year	Rehena Fernandes
		Pamela L. Aranha
		Vedavathi K. Shetty
	PUC	Judith V. Lobo
Best N.C.C. Cadet		
	Senior	Rosamma Neeliyara
	Junior	Zabetta G. Britto
Hostel	III B.A.	Kavery C. A.
	III B.Sc.	Mirabel R. S. Pais

The Essence of Beauty

PRAFULLA PRABHU, PALIMAR,
II B. Sc.,

" I can make your beauty and preserve it,
Rectify your body, and maintain it,
Clarify your blood, suffuse your cheeks,
Perfume your skin, tincture your hair, enliven your eye,
Heighten your appetite . . . . . "

The fragrance exhaled by fresh flowers is one of nature's greatest marvels, yet even now scientists are by no means certain or unanimous in their views as to how or why this phenomenon of metabolism takes place. This fragrance is due to minute traces of essential oil in the petals, as in the rose and in the lavender. Occasionally, as in the jasmine and the tuberose, this volatile oil exists in the form of a glucoside, which is decomposed under favourable conditions. This essential oil is not only confined to flowers, but may occur in certain plants or trees either in their leaves, stems, bark, wood, roots, rhizomes or in the fruits and seeds. It is, for instance, found in FLOWERS like the carnation, the acacia, the clove, the hyacinth, the heliotrope, the mimosa, the jasmine, the orange-blossom, the rose and the violet. Plants having this essential oil in both FLOWERS AND LEAVES are the lavender, the peppermint, the rosemary and the violet. Plants carrying the oil in LEAVES AND STEM are the cinnamon, the geranium and the patchouli. In others it is the BARK that is the source of the oil, for instance in the cassia and the cinnamon. In the cedar, the linaloe and the sandal, the WOOD is fragrant and it is the RHIZOMES of ginger, orris and calamus that yield the oil. In angelica, sassafras and vetivert, the perfume is contained in the ROOTS. In the lemon, the lime and the bitter orange, it is the peel or the skin of the FRUIT that yields the citrus oil. The SEEDS of the bitter almonds, the anise, the fennel and the nutmeg furnish the aromatic oils, and finally the GUMS, or oleo-resinous exudatios from such shrubs and trees as the myrrh, the balsam and the storax contain aromatic oils.

There are too, certain variations in the quantity and quality, and sometimes in the actual aroma of the fragrant oil, extracted from the different varieties of the same plant. In the case of the rose, for example, no two varieties are exactly alike. In some, like the red rose, the white rose and the Marechal Niel, the difference is so marked that it is readily detected. Even the fragrance of the same species varies according to the soil, the climate and the method of cultivation. Just as there are some people who complain that a delicate perfume is lost when they wear it, there are others who are equally convinced that the opposite is true. Similarly we find that the intensity of the fragrance of the rose, the sweet pea, the carnation, and other flowers is influenced consider-

ably by their habitat and by the way each plant is treated. There are also plants like the English lavender, the essential oil of which is outstanding in quality and fragrance, but when grown in other countries yields an inferior perfume. Such variations are being constantly studied by scientists who have been able to establish how the individual constituents of the essential oils are formed in the plant, and how the quantity and quality of the yield may in some cases be improved. Constituents like the alcohols, the esters, the hydrocarbons, the aldehydes and ketones play a vital part in the evolution of the perfume.

One of the most interesting aspects of the art of perfumery is the effort that has been made from time to time to classify odours. A century ago, it was easy because only a few essential oils and flower extracts were known. But now with the developments in industrial chemistry in particular, there are at least a thousand raw materials available to the perfumer. A study of the physiology and the chemistry of the plant has led to the production of numerous artificial perfumes; and research in other directions has also produced many new materials, mainly coal-tar derivatives, that are used either as substitutes for the natural perfume or as distinctive perfumes in their own right.

Piesse, in his "Art of Perfumery" (1885) has hit upon the idea of classifying and comparing odours with sounds. He believed, and it is now freely admitted, that scents have an influence on the olfactory nerves, equivalent to that of sounds on the auditory system. Piesse showed how, as in music, there is an octave of odours, and that certain of these odours can be arranged to coincide with the keys of the piano. To complete the analogy, he selected half-tones or semi-odours such as those of the rose, the geranium, the petitgrain and the neroli. Then come the patchouli, the sandal-wood, the vetivert and several others, all dovetailing quite naturally into each other. He then endeavoured to place each odour in its correct position on the scale, corresponding to its impact on the olfactory senses, giving to each, a musical tone.

There is some justification for classifying Eau-de-cologne, Lavender water and Florida water as "TOILET-WATERS" despite the fact that they are made with weak alcohol and are diluted as a rule with rose water or orange water. Fragrant waters have been in use for thousands of years. Theophrastus has mentioned them nearly 400 years before the Christian era. The modern "Frozen" Eau-de-Cologne is a novelty that many appreciate as a useful and refreshing toilet water. It is really a transparent alcoholic soap, to which the oils have been added, together with menthol to give exceptional cooling properties. The most famous of all English perfumes, is "Lavender water": the *Lavendula vera* is one of the Labiatae plants, from which the essential oil is extracted. It is known to have been growing in England since the earliest times and both as a perfume in its dried state for scenting linen and as a medicine it is popular. "Imperial water" was very popular about two centuries ago. It has a reputation not only for making the skin clear of all blemishes but also for sweetening the mouth. It was prepared by distilling frankincense, benzoin, gumarabic, cloves, pine-nut kernels, sweet almonds and musk, with brandy. "Florida water" has long been a popular perfume water in America, but its popularity never extended to other countries to the same degree. It is believed to be a mixture of lavender water and Eau-de-cologne, to which are added the synthetics, cinnamic aldehyde

and eugenol. "Eau-de-Cananga" is another toilet water, closely akin to Eau-de-cologne. Its main constituent is oil of Cananga or "Ylang-Ylang" distilled from *Cananga Odorata* of the Anonaceae. "Rose water" was used by ancient civilizations but today it does not come within the range of toilet waters, though it is still used as a skin tonic with glycerine.

Here let me touch upon a few materials used in modern perfumery. There are hundreds of them; many with forbidding names would mean little to those unfamiliar with botany or chemistry but are very important in the blending of perfumes for soaps and cosmetics. BALM: the so called Melissa Oil is distilled from the plant *Melissa officinalis* of the Labiatae. Charles V is said to have used it daily in his bath and to have inhaled it to refresh and preserve his intellect. BALSAM OF PERU is a pathological product of a tree *Myroxylon pereirae* of the family Geraniaceae. It is said to impart a peculiar "warmth" to perfumes intended for face powders. It is often used in soaps and lipsticks and also in incense. BASIL is regarded as a sacred plant in India. The tulsi or holy basil, *Ocimum basilicum* of the Labiatae, is dedicated to Sri Krishna, and named after Tulasi—the beloved of Krishna. BENZOIN is another balsam or resin, being an exudation from *Styrax benzoin* of the Styraceae. The trees yield resin for two or three years and are then cut down, to be used for the manufacture of matches. In perfumery, benzoin is used to give "body" to a perfume and also as a fixative. CASSIA is distilled from the leaves of *Cinnamomum cassia* of the. Lauraceae, extensively cultivated in China. It is used to perfume Brown Windsor Soap. CEDAR WOOD OIL is distilled from the wood of the lofty *Juniperus virginiana*, one of the Coniferae. The oil of commerce is used as the basis of many perfumes, notably for use in cold-creams. CHAMPACA is distilled from the pale lemon, tulip-shaped blooms of a tree of the Magnoliaceae which grows in India, in the Philippines and in Java. The flowers have a delicious fragrance. They are said to be sacred to Vishnu. JASMINE originated in India. Like that of the rose, the fragrance of the jasmine is unique and has never quite been truly matched synthetically. It can indeed be said to run a very close second to the rose as the greatest perfume of universal appeal. PATCHOULI is obtained from distilling the dried leaves of *pogostemon patchouly* of the Labiatae which grows in India and the East Indies. It is one of the finest fixatives for heavy perfumes like amber, chypre, and fougere. SANDAL WOOD—*Santalum album* of the family Santalaceae, is one of the few woods that are not attacked by white ants. It grows chiefly in Mysore and Madras. The powdered wood, mixed into a paste, is used by the Hindus for making caste mark. The oil distilled from sandal wood is used in medicine and perfumery chiefly as a soap perfume. TUBEROSE—*Polianthes tuberosa* of the Amaryllidaceae, is one of the most fragrant flowers used in perfumery. It has for many years been regarded as the symbol of voluptuousness, its perfume having an effect akin to intoxication. The natural flower absolute is one of the most expensive used in perfumery. VANILLIN—*Vanilla planifolia* of the Orchidaceae is said to sweeten the tone of certain artificial perfumes. It has a limited use in soap and is the basis of the so called vanilla essence. VETIVERT OIL: distilled from the tufted grass *Vetiveria zizanioides* of the Graminae is one of the finest fixatives known.

Here is something you should take note of in your choice of perfume and the

art of make-up. The use of the right perfume is as much a part of a woman's attraction as her voice, her smile, her hair or her complexion. Broadly speaking, there are four types of perfumes from which the choice is made: The flower type in which the natural scent of one flower predominates, the floral bouquet, which is a subtle blend of two or more flower scents, the mossy type, to which the fern belongs, and lastly the fruity spicy type of perfume that is classified, for want of a special word, as sophisticated. The right place for the perfume is not on the clothes, but on the skin. Many young women show considerable taste both in their choice and in their use of cosmetics, but far too many misapply them producing exaggerated and even grotesque effects with possible harm to their skin. On the other hand, a vast majority of women use far too little of make-up and that too, only on special occasions. It is certainly no economy to make perfumes and cosmetics last for months since they deteriorate in quality and effectiveness if kept for a long period. Physical attraction is one of the most vital forces in human beings, and it is just commonsense for women to make the best of what nature has bestowed on them.

A Short History of Mathematics

VEEDA RASQUINHA,
I B. Sc.,

The contemplation of the various steps by which mankind has come into possession of the vast stock of mathematical knowledge can hardly fail to interest the mathematician. He takes pride in the fact that his science, more than any other, is an exact science, and that hardly anything ever done in mathematics has proved to be useless. The Chemist smiles at the childish efforts of alchemists. But the mathematician finds the geometry of the Greeks and the arithmetic of the Hindus as useful and admirable as any research of to-day. He is pleased to notice that, in course of its development, mathematics has had periods of slow growth. Yet, in the main, it has been pre-eminently a progressive science.

The history of mathematics may be instructive as well as agreeable. It may not only remind us of what we have, but may also teach us how to increase our store. Says A. De Morgan: "The early history of the mind of men with regard to mathematics leads us to point out our own errors. In this respect, it is well to pay attention to the history of mathematics." It warns us against hasty conclusions. It points out the importance of a good notation upon the progress of science. It discourages excessive specialisation on the part of investigators, by showing how apparently distinct branches have been found to possess unexpected connecting links. It saves the student from wasting time and energy upon problems which were, perhaps, solved long since. It discourages him from attacking an unsolved problem by the same method which has led other mathematicians to failure. It teaches that fortifications can be taken in other ways than by direct attack, that when repulsed from a direct assault it is well to reconnoitre and occupy the surrounding ground and to discover the secret paths by which the apparently unconquerable position can be taken. The importance of this strategic rule may be emphasised by citing a case in which it has been violated. An untold amount of intellectual energy has been expended on the quadrature of the circle, yet no conquest has been made by direct assault. The circle-squares have existed in crowds ever since the period of Archimedes. After innumerable failures to solve the problem at a time, even, when investigators possessed that most powerful tool, the differential calculus, persons versed in mathematics dropped the subject, while those who still persisted were completely ignorant of its history and generally misunderstood the conditions of the problem. "Our problem", says A. De Morgan, "is to square the circle with the old allow-

ance of means, Euclid's postulates and nothing more. We cannot remember an instance in which a question to be solved by a definite method was tried by the best heads, and answered at last, by that method, after thousands of complete failures." But progress was made on this problem by approaching it from a different direction and by newly discovered paths. J. H. Lambert proved in 1761 that the ratio of the circumference of a circle to its diameter is irrational. Some years ago, F. Lindemann demonstrated that this ratio is also transcendental and that the quadrature of the circle, by means of the ruler and compasses only, is impossible. He thus showed by actual proof that which keen-minded mathematicians had long suspected: that the great army of circle-squarers have, for two thousand years, been assaulting a fortification which is as indestructible as the firmament of heaven.

Another reason for the desirability of historical study is the value of historical knowledge to the teacher of mathematics. The interest which pupils take in their studies may be greatly increased if the solution to problems and the cold logic of geometrical demonstrations are interspersed with historical remarks and anecdotes. A class in arithemetic will be pleased to hear about the Babylonians and Hindus and their invention of the "Arabic notation". They will marvel at the thousands of years which elapsed before people had even thought of introducing into the numeral notation that Columbus-egg—the zero. They will find it astounding that it should have taken so long to invent a notation which they themselves can now learn in a month. After the pupils have learned how to bisect a given angle, surprise them by telling of the many futile attempts which have been made to solve, by elementary geometry, the apparently very simple problem of the trisection of an angle. When they know how to construct a square whose area is double the area of a given square, tell them about the duplication of the cube. After the class have exhausted their energies on the theorem of the right angle, tell them the legend about its discoverer. How Pythagoras, jubilant over his great accomplishment, sacrificed a hecatomb to the Muses who inspired him. When the value of mathematical training is called in question, quote the inscription over the entrance to the academy of Plato, the philosopher: "Let no one who is unacquainted with geometry enter here". Students of analytical geometry should know something of Descartes. After taking up the differential and integral calculus, pupils should become familiar with the part that Newton, Leibnitz, and Lagrange played in creating that science. In his historical talk it is possible for the teacher to make it plain to the students that mathematics is not a dead science, but a living one in which steady progress is made.

A similar point of view is taken by Henry S. White: "The accepted truths of today, even the commonplace truths of any science, were the doubtful or the novel theories of yesterday. Some, indeed of prime importance, were long esteemed of slight importance and almost forgotten. The first effect of reading the history of science is a naive astonishment at the darkness of past centuries, but the ultimate effect is a fervent admiration for the progress achieved by former generations, for the triumphs of persistence and of genius. The easy credulity with which a young student supposes that of course every algebraic equation must have a root gives place finally to a delight in the slow conquest of the realm of imaginary numbers, and in the youthful genius of a Gauss

who could demonstrate this once obscure fundamental proposition."

The history of mathematics is important also as a valuable contribution to the history of civilization. Human progress is closely identified with scientific thought. Mathematical and physical researches are a reliable record of intellectual progress. The history of mathematics is one of the large windows through which the philosophic eye looks into past ages and traces the line of intellectual development.

SYMPOSIUM:

"Man on the Moon"

H. JYOTHI PRABHU,
III B. Sc.

APOLLO 11

During this Science Inauguration Day, it is my privilege to speak about the landing of American astronauts on the moon with the help of space craft Apollo 11 from the point of launching at Cape Kennedy.

Before dealing with the step by step plan of the flight, it is essential to know the different parts of Apollo 11. It consists of two major sections, the giant three-stage Saturn V, the world's most powerful rocket and the Space Craft assembly comprising the Command Module, the Service Module, and the Lunar Module.

On the 16th of July, 1969, at 7–02 P.M. (I.S.T.), Apollo 11 was launched from Cape Kennedy, America's Space post, with N. Armstrong, Edwin E. Aldrin, and Mike Collins in the Space Craft. The 363 foot tall Apollo-Saturn V was lifted off its launching pad to an altitude of 38 miles by Saturn's first stage, and then to an altitude of about *114 miles* by the 2nd stage, all in about *9 minutes*. Then the 3rd stage of the rocket was fired to place the space craft into earth's orbit, accelerating it to 25,000 miles an hour, aad push it into the 'translunar' trajectory.

Saturn V with its 7.5 million pounds of thrust lifted itself off launch pad with a brilliant burst of flame and a mighty roar, one of the loudest sounds ever generated by man.

At the first rocket stage it consumes fuel at the incredible rate of *3400 gallons* each second. It requires only 150 seconds to propel the Apollo Space craft with its three Astronauts aboard to an altitude of about 38 miles and a speed of 6000 miles.

The second rocket stage burns for about six minutes, consuming nearly 500 tons of liquid hydrogen and liquid oxygen as fuel. It thrusts the space craft to an altitude of *114 miles* with a speed of *14,000 miles* an hour.

The third rocket stage burns just sufficiently to increase speed to about *17,500 miles* an hour so as to insert itself and the space craft into a near circular earth orbit at an altitude of about *115 miles*. About 2 hours from the time of lift off at the 2nd earth orbit, they fired the third stage engine to get an acceleration of about *2,400 miles* an hour and go out of earth's gravitation to an altitude of about 225,000 miles away.

Then the astronauts conducted some manoevre, adjusted the modules and ejected the third stage of the rocket which was no longer needed. All these took place in about five hours. To come to the vicinity of the moon it took three more

days. With the help of Reaction Control system the space craft was made to rotate twice an hour for the even distribution of Sun's heat over the craft.

The speed and direction of the space craft were being monitored by an earth wide network of tracking stations. The crew could alter the craft's course if the computations showed that minor adjustments were necessary.

The momentum imparted by the rocket gradually decreased. By the time the Space Craft was about *30,000 miles* from the moon (about 2,00,000 miles from the earth) its speed decreased to about *2100 miles* an hour. At that point the moon's own gravitational pull began to act on the craft accelerating it again.

By the time the craft was about *5600 miles* from the moon (about three days from the time of launch) the moon's gravitational pull accelerated the craft to a speed of about *5700 miles* an hour.

Now the astronauts used their Service propulsion system for a braking action to slow down the speed to *3720 miles* an hour in order to insert itself to the lunar orbit of *196 miles* at the highest and *70 miles* at the lowest point. After two such orbits a second firing by the main engine adjusted the orbit to a circular path around the moon at an altitude of *70 miles*.

Now Armstrong and Aldrin entered the tunnel leading from the main Craft to the attached Lunar Module (Eagle) while Mr. Collins remained in the Command Module. Then the separation of the Lunar Module from the Command Module took place and it orbited the moon in a new orbit, at about *9 miles*, while the Command Module orbited the moon at a height of *60 miles* from the moon.

At that low point they ignited the engine again and the space craft computer, fed with information from the powerful landing radar antenna controlled the flight of the four-legged module to the surface. Two hours and 32 minutes after the Eagle separated from the Command Module it settled down gently on the Lunar Surface. The place of landing was shifted 4 miles away from the place fixed by them in the sea of tranquillity on account of the presence of a crater there. At 1.48 A.M. (I.S.T.) on 21st July 1969 they landed on the moon, and created a new record in history.

The Lunar Special

GORETTI RASQUINHA,
IIIB. Sc.

Earth is man's cradle. Will you always remain in the cradle—questioned Constantant Edwardo-viz Ciyolkovsky, a Russian scientist and father of rockets in 1898. The child grows: but the cradle does not. The child which wondered at the height of it one day will jump out of it. Greater the obstacle greater will be the desire to overcome it. How to get out of the cradle? The only way is to jump out of it to get hold of another object near by.

Research and advance has come to a stage at which man cannot do more by merely sitting on this planet the Earth. In the 5th decade of this century Rocket science achieved commendable progress. A space vehicle is a rocket and not an aeroplane. It is a series of rockets with several stages in which when the lower most rocket has burnt out, the one above it will burn. The space age initiated by the Russian sputniks in 1957 took such a quick stride that one has to wonder at it. The then American President J. F. Kennedy ordered; "We must take a pledge that we will achieve this ambition of sending a man on to the moon and his safe return to his motherland before this decade is out." As a result the Apollo Plans were drawn up.

"We welcome you to participate and be with us. Even though three persons only travel, two only land on the moon, the whole world is with them"–with these words President Nixon welcomed all men to the first investigation of the moon by man.

Our generation will go down in history as fortunate to have lived this day to witness this priceless moment of the majestic and peaceful conquest by man of the friendly planet the moon, where there was nobody to welcome them except the infinite Architect of the universe surrounded by the immensity of silent space.

This technological miracle has a history of its own; Eight long years of planning, co-ordinating and hard work on the part of thousands; a project cost of close to 600 million dollars; the cooperation of over 5,000 industrial and engineering firms working as a team; and the fabrication of delicate and vital components and instruments by devoted men in silence and obscurity.

The lunar special, – its full name is Apollo 11/Saturn 5. These numbers 11 and 5 indicate the present position of the attempts made in "Man on the Moon" project. In this, the lower part is Saturn 5– a rocket of three stages. It is that which will carry the Lunar ship into space. As it moves up, these rockets burn out one after the other. The upper portion is named Apollo– the abode of the astronauts. The total height of this vertical erection is 100 meters and it weighs 3000 tons. (Each ton is equal to 1000 K.G.) Apollo itself is 25 meters in height and weighs 45.26 tons.

Apollo has eight parts in all. The top most is the pencil or the tower—an arrangement to get released from the forward flight if there be a need. In case a flaw is noticed in the first flight, the cell containing the astronauts is to be separated from the rest to be carried higher up from where the cell can alight safely on the earth with the help of parachutes. If the first flight is satisfactory the tower at the top is detached and thrown out to reduce the excess weight.

The next three parts are named as Command Module, Service Module containing the instruments and machines and Lunar module. In short, C.M., S.M. & L.M. The three together is the space ship.

Command Module is the abode of astronauts. Its shape is conical. In its forward flight, its pointed end helps to plough through the atmosphere. While returning to the earth, its large base is towards the earth. While entering the atmosphere, its flat surface skips over. This brings the greatest contact which serves two purposes. The speed of the module is controlled to some extent. Secondly, most of the heat that is generated due to friction with air is radiated. Hence the temperature of the outer surface does not cross the danger limit. Otherwise, it will become a burning meteor. The design and construction of the module is very complicated. It must be light, very strong and capable of withstanding variation of temperature from 101°C. to 2760°C. Also it must resist the variation of the tremendous velocity of 10,000 K.M. per hour. It should be safe under the high pressure of 3,100 tons. Withstanding all these conditions, it must give protection to the astronauts accommodated in its heart. These travellers to the moon are in cabins in which the pressure and air are suitably conditioned. Surrounding them, there is a shield of aluminium. It has a honeycomb-like cover around it. An aluminium shield covers it. Surrounding it is a vacuum. Around it, there is a stainless steel construction. This is a gross description of the construction of the module. There are three main parts in it: A pointed upper part which is very sensitive and important. Here there is a mechanism which connects the lunar module at the right time. In the return journey to earth, this pointed end is upwards against the direction of motion. Then parachutes are adjusted to get themselves to open out and thereby retard the velocity of the module. The central portion of the module is the residence of the astronauts. Their movements, respiration, talk, everything is picked and the picture is televised down to the earth by automatically run machines. All the orders to be sent to the travellers to the moon are sent and communicated through the instruments installed here. For their residence, a suitably conditioned space of capacity 5.9 cubic metres is provided. The third part is at the bottom; it has several instruments and shock absorbers to receive the impact of this module on to the ocean in its return journey.

Below the C.M. is attached the service module. This is mainly the abode of several complicated instruments. Electric generators to feed the several instruments are installed in it and the mechanism of control of the speed of Apollo is equipped here. The role to be played by this, in the driving and control of Apollo since its release from Saturn till its return to the earth, is very great.

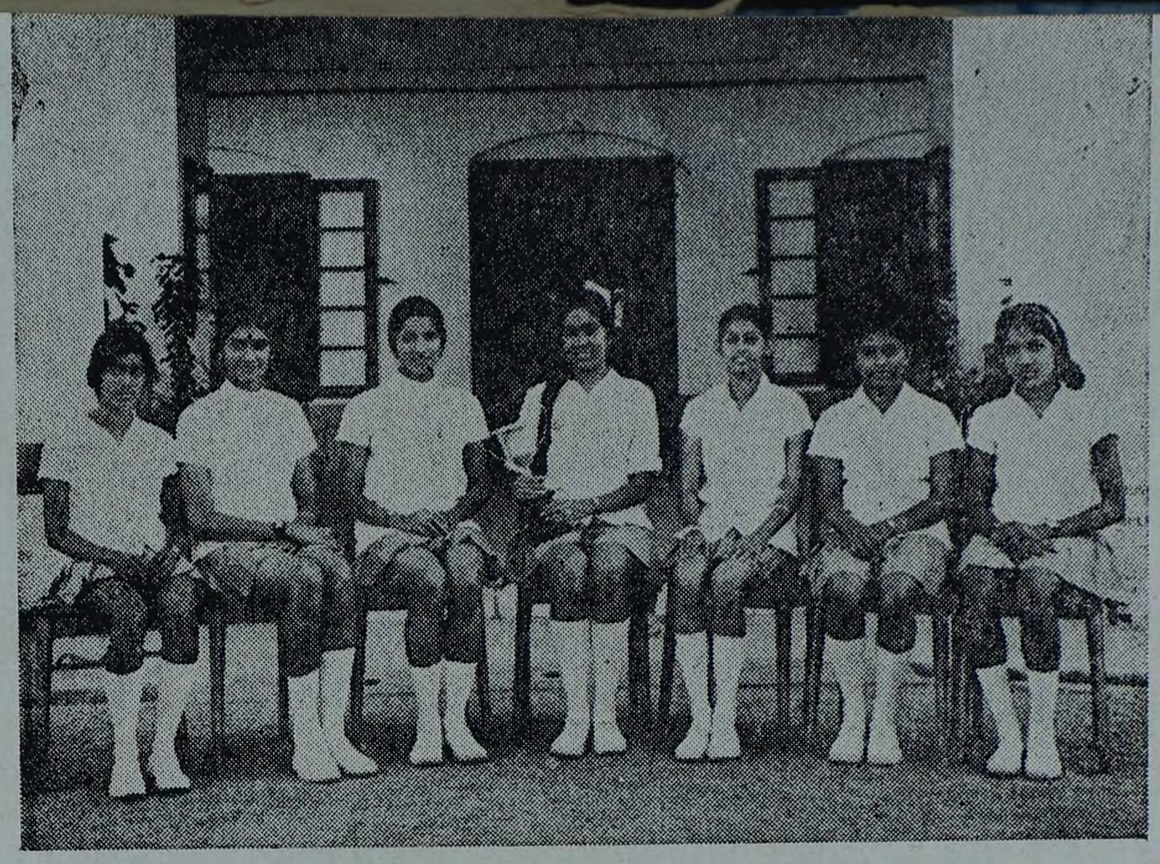
Joined to S.M. is Lunar Module, under a protective cover. The long four legs remind the shape of a giant spider. Near the moon, this comes to the forefront carrying two astronauts in it. It lands softly on the moon and so it is called

the Lunar taxi. There are two important parts. The lower part lands on the moon. Speed controlling retro-rockets, down-stretched four legs, instruments which will gather information as soon as the moon landing is done, a seismograph to record tremors on the moon, cameras, all these are installed here. A ladder is attached to one of the legs for the descent of the astronauts. The construction of this part is very complicated. This is the abode of the astronauts. They must be well-equipped to face any danger at any moment in a new environment in their first expedition. They must be ready to leap up immediately after the landing or even before landing if there be any impending danger. So all the equipments of control, communication and computers are here.

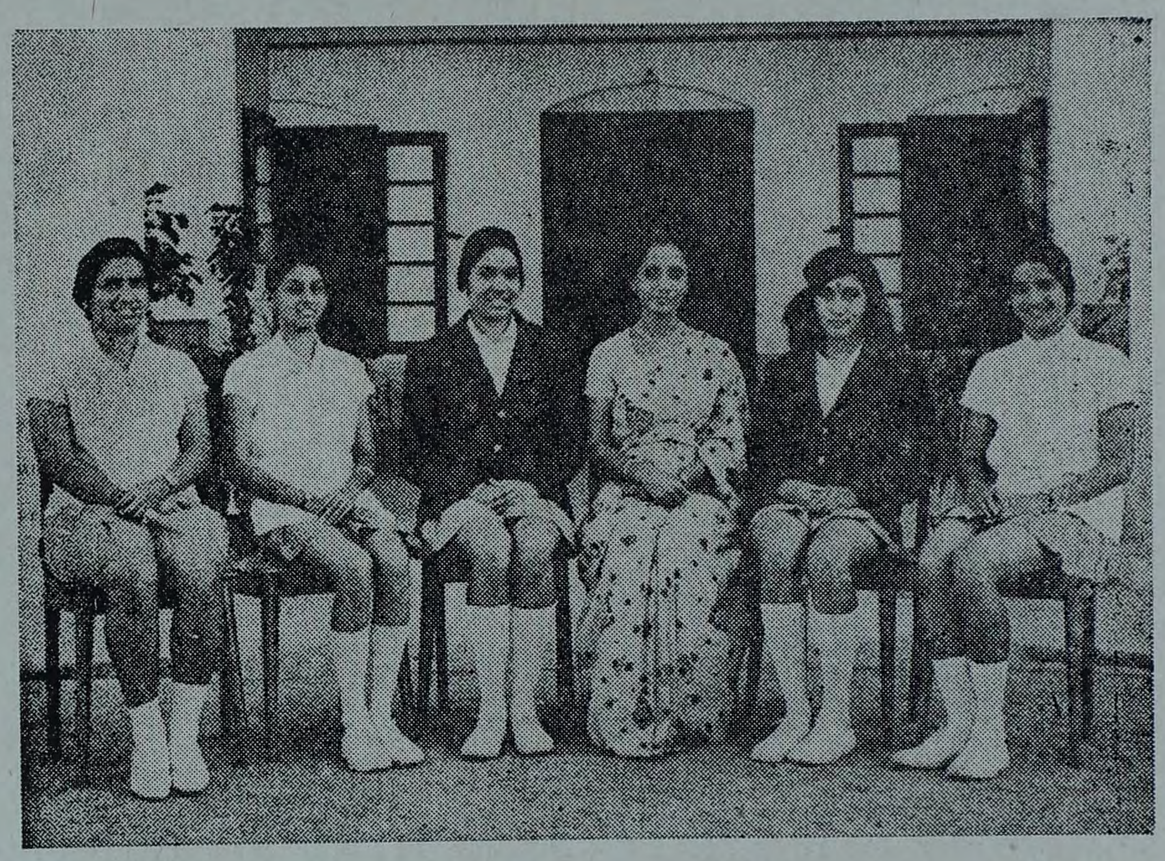
The remaining four parts of Apollo are only to take it in the right path, correctly towards the target. The computer of Apollo is situated here.

This is a brief description of the Lunar Special. 100,000 people have worked for six years in the construction of this space ship and the total money spent by the United States of America towards the "Man on the Moon Project" is about 24,000 million dollars (24,000,000000).

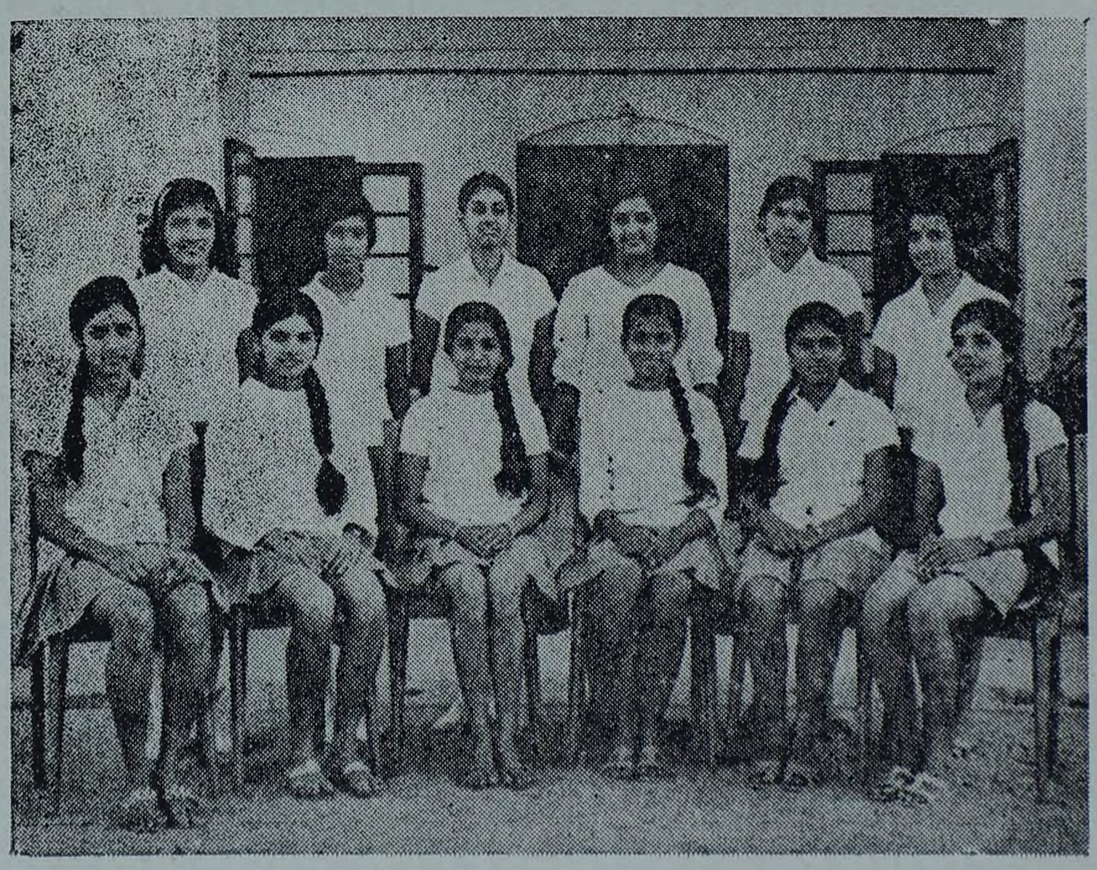
Athletes All



College Athletes

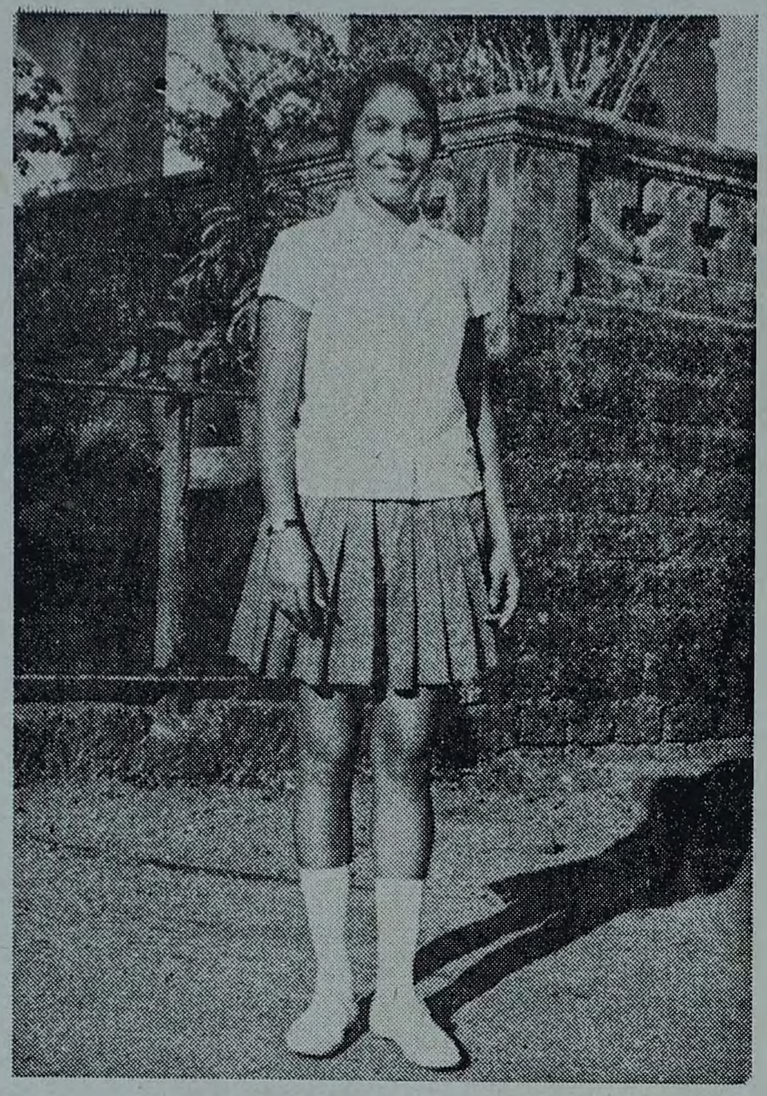


Games Committee — with Physical Directress,
Zita Aranha (4th from left)



University Soft-Ball Champions

Sports-Stars



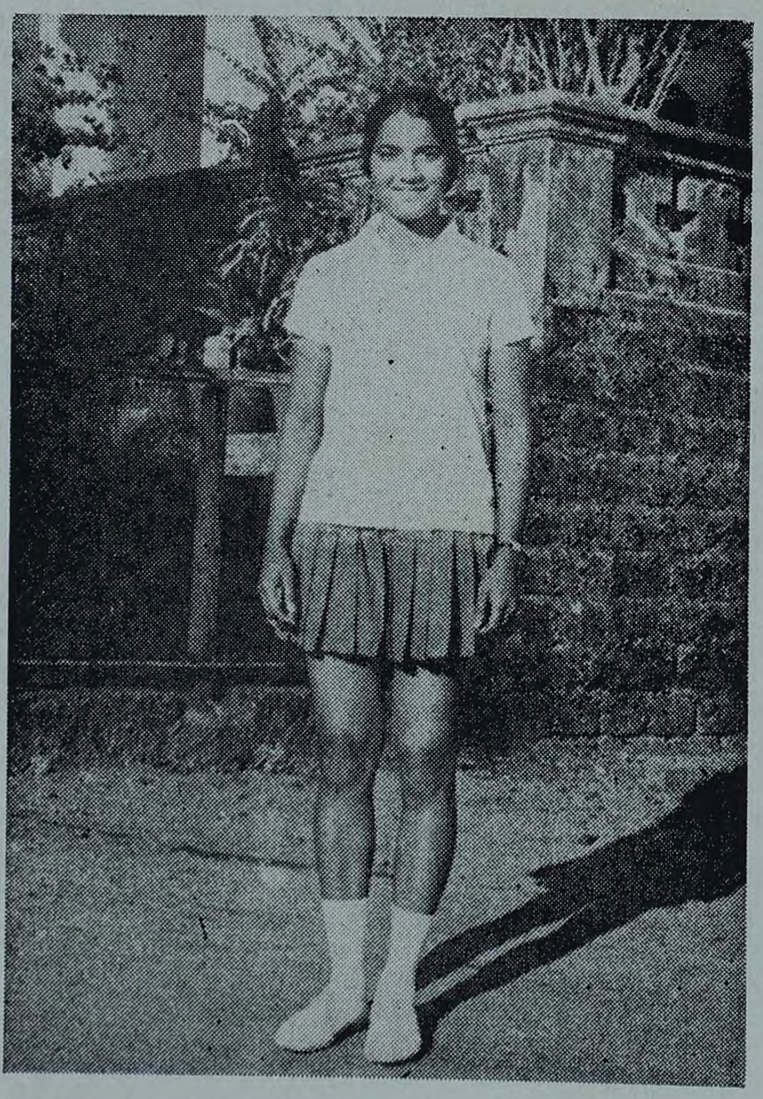
JESSIE PAIS

National Champion — High Jump
broke the 13 year record clearing 1.52 metres



POORNIMA AND PAMELA
(Table Tennis)

PAMELA represented the Mysore University at the All India Inter-varsity Table Tennis Tournaments Bombay



JACINTHA FERNANDES

Mysore University – Athletic Champion



REHANA, JESSIE, PAMELA, VEDAVATHI

Represented Mysore University at the All India Inter-varsity Athletic Meet — Baroda

The Life Stream

MUKTHA BALIGA,
III B. Sc.

A machine can work effectively only if all its parts work in perfect harmony. Likewise, our body can maintain itself in health and strength if all its organs work in absolute cooperation with one another through an established relationship. This relationship is effected by the blood and nerves. The blood supplies the substances needed by the various systems of the body; it also forms the highway over which the internal secretions of the endocrine glands travel to the different parts of the body and regulate their activity. The blood may be called the 'postman of the body.'

To the naked eye, this remarkable fluid looks like a mere red sticky mass. Under the microscope, we can see that it is composed of a watery fluid called plasma, in which certain solid elements called blood corpuscles and other complex substances are seen.

The plasma is the watery part of the blood. It is a clear yellow fluid, serving as a vehicle for the transportation of the red blood corpuscles, white blood corpuscles, platelets and various substances necessary for the vital functioning of the body cells, for clotting of the blood and for the defence of the body against diseases. After clotting occurs, a straw coloured liquid called 'serum' is left.

About 90% of plasma is water in which great varieties of substances including the proteins such as fibronogen, albumin and the globulins, so also sugar, fat and inorganic salts together with the hormones secreted from the endocrine glands are found. The proteins in the plasma serve to balance the pulling effect exerted by the proteins in the cells. Gamma globulins are antibodies that serve to immunize the body against diseases. The globulins, prothrombine and protein fibrinogen play a vital part in the blood clotting mechanism.

The red blood corpuscles of the blood form the major constituent of the formed elements. In a healthy body they are about five million in every cubc centimetre of blood. Structurally, they are in the form of concave discs and are made up of a frame work of protoplasm which is composed chiefly of proteins and fats. It forms a mesh which holds a complicated red pigment known as haemoglobin,which gives blood the red colour. This chemical substance contains a large amount of iron and has the special characteristic of being able to unite with oxygen in the lungs after the inhalation of air, to form a compound known a 'oxy-haemoglobin' Not only haemoglobin combines easily with oxygen, but it parts with it equally readily. Thus the red blood cells draw oxygen from the lungs and transport it in the blood stream and release it to the tissues. It also has the power of uniting and parting with carbon dioxide from the tissues and giving it off in the lungs. In high altitudes, the rarefied air contains less oxygen; so the body needs more red cells to carry the needed amount of oxygen to its cells. Therefore, within limits,

people living in higher altitudes will have a higher haemoglobin content.

The bone marrow may be yellow or red. It is the red marrow found in the ends of the long bones and throughout the interior of flat bones, such as the vertebrae and ribs that produces the new red blood cells. In the early stages of their formation, the cells have definite nuclei. In man and other mammals, the nuclei are lost by the time the cells mature and before their release into the blood stream. The average life span of a red blood corpuscle is 110—120 days. Worn-out cells are destroyed by the spleen; the remnants are transported to the liver, which stores their iron content. Eventually, the iron passes to the bone marrow where the new cells are formed. In a healthy individual the rate of formation of blood cells keeps pace with the rate of destruction.

The white blood cells are the body's military force attacking the disease germs. These cells are far less numerous than the red variety. The leucocytes are slightly larger than the red blood cells and are semi-transparent bodies. They contain no haemoglobin and are nucleated. There are several varieties of leucocytes—neutrophils, lynphocytes, eosinphils, basophils and monocytes. The neutrophils, basophils and eosinophils are formed in the bone marrow—lymphocytes are made in the lymphatic tissues, monocytes in the reticulo endothelial system. Each type of leucocyte probably has a different work to perform in combating a bacterial invasion. One type is believed to have the power of diffusing into the blood plasma substances that have a destructive action upon the invading bacteria. Another is able to fix or render harmless, the poison secreted by the enemy. A third variety known as phagocytes can engulf the dead bacteria by amoeboid movements when they have been rendered harmless by the action of the other leucocytes. As a result of all these activities, the area of the infection becomes swollen with blood, tissue, fluids, dead cells, living and non-living bacteria and neutrophils and various kinds of cell fragments which form a thick semi-liquid mass called 'pus' which is evacuated by the formation of an abscess.

When the invasion is a serious one, the turmoil of the conflict affects the whole body system, The patient suffers from a raised temperature, increased action of heart and such symptoms as poisoning, headache, loss of appetite and pain. During this period, the number of white blood cells is increased too. Sometimes as a result of a victory over invading organisms, the blood becomes endowed with properties that render the body permanently immune to further attacks from that particular enemy. Thus, a patient who has recovered from small pox, will never again be susceptible to small-pox infection. This is due to the presence in the patient's blood, of what are known as 'immune bodies' or substances which can neutralise bacterial toxins. These often remain in the patient's blood for the rest of his life.

Use is made of this immunity principle in the serum treatment of disease. To prepare a serum, blood is drawn off from an animal that has previously dealt with successfully the disease in question, and allowed to clot. The serum containing immune bodies separated from the clot is injected into another animal that is at that moment under the attack of the disease. Immune serum of this kind is given in order to neutralise the poison that entered into the blood during an attack of diphtheria or tetanus.

The blood is so vital that the loss of a considerable quantity of it would have

direct consequences. To avoid this, nature has provided a means of stopping the flow from ruptured blood vessels through the process known as coagulation or clotting. The phenomenon of clotting is of great importance to the body. In clotting, the blood is first converted into a viscous, then gelatinous mass. As the process continues, thread-like structures called fibrin form a tangled mesh. As the clot solidifies, a straw-coloured serum is squeezed out. The clot is red-colourd due to the red blood cells that have been captured between the interlacing strands of fibrin. It is formed through the union of two substances called fibrinogen and thrombin.

Quite a number of illnesses are characterised by some abnormalities in the bood. In various cases, the red blood cells are seriously reduced in number or else they are deficient in haemoglobin. This condition is known as 'anaemia'. Because of the deficiency of haemoglobin less oxygen is distributed to the tissues; as a result, cells cannot function normally. This leads to fatigue, headache and weakness. Occasionally, there is an excessive amount of water in the tissues; this is caused by poor circulation. There are various types of anaemia. Nutritional anemia is due to some malfunctioning of blood-forming centres. In haemolytic anaemia, the red blood cells are destroyed at too fast a rate. This may be an inherited factor. If at all the production of red cells is increased the blood becomes too thick and moves sluggishly; this causes disturbances in the body system. In some cases, there is overproduction of white blood cells. The white cells over-run the bone marrow, crowd out the red cells and cause an anaemia to develop. The lymph nodes become swollen with their burden of white cells. This disease is known as 'leucaemia.'

The failure of the blood to clot properly has serious consequences in the disease called 'haemophilia'. It is a hereditary disease occurring almost exclusively in males and transmitted directly through females. It still baffles the medical men. There does not seem to be any deficiency in any of the essential factors in clotting, fibrinogen, calcium, prothrombin, platelets. Perhaps they fail to disintegrate quickly, when an injury takes place and, for this reason, an insufficient quantity of prothrombokinase is released. There is no cure for haemophilia. It can be avoided if the female carriers do not bear children; hence the disease may be eradicated in time.

There are times when blood may clot too quickly. The clotting reaction may be triggered too easily and may take place in the veins or arteries. A clot called thrombus may be formed upon the walls of a ruptured blood vessel in such a way as to block the flow of blood. If this vessel supplies a vital body structure, the consequence may be most serious. Death may result unless near by vessels can take over the task of supplying blood to the affected area.

For many hundreds of years, attempts have been made to make good the loss sustained in haemorrhage by infusions of blood, but all attempts were formerely frustrated by the rapidity with which the donor's blood clotted. But now it has been found out that every person's blood possesses certain characteristics which distinguish it from the blood of others. They are inherited in accordance with the Mendelian laws of heredity and remain unchanged throughout life. On the basis of this, human beings have been divided into different groups.

The researches of Karl Landsteiner and others have discovered the reasons for

the clumping of blood of the donor and the recipient. It is due to substances called 'antigens' which occur in red blood cells and also the 'antibodies' that originate in the serum of the blood. A certain variety of antibody will cause certain red blood cells to form clumps.

The blood of human beings has been classified into four groups on the basis of four important antigens. The antigens A and B are two important types; corresponding to these are two kinds of antibodies called anti A and B. Clumping of blood takes place if blood containing A is mixed with blood containing anti A, or blood containing B is mixed with blood containing anti B. The blood cells of a given person may have both A and B or neither A nor B; in the latter case, he belongs to 'O' group. Of course no person could possibly have both A and anti A or B and anti B, because if such were the case, clumping of blood cells would result. On the basis of A, B, anti A, anti B factors human beings belong to A, B, AB and O groups. There is another important blood grouping, the so called Rh factor, an antigen found in the red cells of most people. It is called Rh factor because it is similar to an antigen found in the red cells of the Indian rhesus monkey. Blood possessing Rh factor is known as Rh-positive, and the blood devoid of this antigen is known as Rh-negative.

If blood from an Rh positive person is transfused into the veins of an Rh negative person, the serum of the latter will produce anti Rh antibodies. If the patient receives another transfusion from an Rh positive donor, the anti Rh antibodies will clump or agglutinate the donor's red blood cells. Clumping of the cells may occur following a single transfusion in the case of Rh negative women who are pregnant or have just given birth.

Much of the blood used in the transfusion nowadays comes from the blood banks of hospitals. These banks consist of stored blood, contributed by voluntary donors. The blood is stored in containers in a solution of sodium citrate and dextrose and is kept at a temperature of 4°C.

In many cases, human plasma is used for transfusions, particularly to replenish deficiencies in blood proteins, to maintain blood volume or lesson blood concentration. The great advantage of this type of transfusion is that plasma from any donor may be used.

Another remarkable property of blood is production of lymph. Many blood capillaries are so minute that the blood cells can pass along them only in single file. Consequently the fluid passes through the walls of the fine capillaries into the surroundings and this fluid is called lymph. It is from this lymph the tissues derive their nourishmant and excrete their waste products into.

Such is the wonderful action of human blood which sustains our life.

The Blue Print of Physical Life

MEERA ACHAR, B. *III B. Sc.*

The fabric of life on earth, in the weaving for eons, has taken on many patterns, reflected many hues. Nature, while dissimulating wild abandon in design, proliferating innumerable and varied forms in what sometimes appears to be sheer caprice, is a rather methodical master weaver. Her genius is this: with only three different threads—protein, deoxyribonucleic acid (DNA) and ribonucleic acid (RNA)—she has woven a magnificent Joseph's coat of life on earth.

Nucleoproteins, compounds of a protein and a non-protein component called nucleic acid, are present in the chromosomes of the nuclei and the cytoplasm of all the cells of the living organisms. The nucleic acids play an important role in the transmission of hereditary characters and the synthesis of proteins.

The limitless diversity of life, its orderliness, its form and continuity were controlled and conveyed by the amazing substance called DNA, or in a few cases by the other nucleic acid, RNA. Without the organisation of DNA, there would be no living world as we know it.

Height, sex, colour, all the gross structural features would have to be worked out, and so would all the interior arrangements, the form and placement of the organs and tissues and of the 1,000,000,000,000,000 cells, and all the apparatus for the production of new cells and new beings. It is difficult even to imagine the plans that would be required for the building of a complex living creature.

And yet, all the evidence showed, DNA did the whole overwhelming job. Sometimes all the plans and specifications were encompassed in an invisible speck of matter deep in the nucleus of the cell. It seemed a fantasy of fantasies, an impossible, nearly inconceivable feat of engineering and design. Yet it was a reality, a reaility re-created and repeated billions of times each day.

The building blocks of DNA and RNA are called nucleotides. Each nucleotide consists of a phosphate group, a 5-carbon sugar group and an organic base.

The nucleotides of DNA, called deoxyribonucleotides, have a deoxyribase sugar unit (having one oxygen atom less than ribase sugar) and either a purine base (adenine or guanine) or a pyrimidine base (cytosine or thymine). The four units of DNA are called adenine, thymine, cytosine and guanine nucleotides after their purine and pyrimidine components and are often designated A,T,C, and G.

The corresponding nucleotides of RNA differ in having a ribase sugar instead of deoxyribase and the pyrimidine base uracil (U) in place of the thymine of DNA. Each neocleotide unit is composed of some 30 atoms of only 5 kinds: carbon (C), hydrogen (H), oxygen (O), nitrogen (N), and phosphorus (P). In its longest dimen-

sion this unit is less than one-billionth of an inch.

According to the Nobel prize laureates Watson and Crick, the structure of DNA is a double helix somewhat like a spiral staircase, with the adenine-thymine and cytosine-guanine nucleotide pairs representing the steps and the sugar-phosphate side chains representing the external helical supports.

A DNA double helix may be hundreds of thousands of nucleotide pairs long; for example, there are 200,000 such pairs in the DNA core of a T2 bacterial virus particle.

Not long after Miescher isolated DNA without his very knowledge, another unique form—ribonucleic acid—was found in the nucleus of the yeast cell. Like DNA, it was composed of sugar (though a different sugar), phosphorus and four other groups of material. Three of the latter—adenine, guanine, and cytosine—were the same as in DNA; the fourth, however, is uracil. The uracil took the place occupied by the thymine in DNA.

The ribonucleic acid — RNA — seemed to occur only in plant cells, and for many years, it had been considered only a plant nucleic acid. DNA, it was thought, was confined to animal cells. This false distinction was upset un 1924 when Feulgen began to apply his Fuschia colour test to all kinds of cells. The bright purple—red testifying to the unmistakable presence of DNA appeared in wheat and other plant cells, and similarly RNA was found in animal cells too. Both nucleic acids then appeared to be constituents of all cells, plants and animals.

Martin Behrens found that most DNA is concentrated in the nucleus and most RNA in the cytoplasm. Torbjoern Caspersson found out that most of the RNA in the nucleus is concentrated in the nucleolus. The Swedish scientists showed that the amount of RNA a cell contained might vary widely. Some cells particularly those engaged in the active production of protein, had heavy concentrations of RNA. Others, among them the physiologically active cells of the heart and muscles, had relatively little. In this variation RNA was most unlike DNA, which is present in an exact and unchanging amount in every cell. Jean Brachet of Belgium, using different methods, also found this varying distribution of the "second" nucleic acid.

The Swedish group went even further in its tracking of the nucleic acids. Holger discovered that the RNA in the cytoplasm was often clustered around the nuclear membrane.

If DNA should serve as the genetic material, it must be capable of self-replication, in order to supply copies to the descendant cells. DNA must also guide the synthetic machinery of the cell to make the specific proteins.

Watson and Crick proposed that DNA molecules replicate by simple separation of the paired strands of the double helix, each then serving as a template upon which free nucleotide units collect. Some observations with the electron microscope indicate that the double helix 'unzips' prior to replication.

Replication, biological reproduction at a molecular level, is going on unceasingly in thousands of cells in the body at any single moment. DNA and possibly RNA are the only known kinds of molecules capable of this type of self-copying. Nucleic acids are therefore the very basis of all life, as we know it, on earth.

Ochoa, the head of the department of biochemistry of New York University, prepared a solution of all the four diphosphates of A, G, U and C. The azoto-

bacter enzyme was added, and history truly was made. The four units were assembled into the matched chains and helix similar to the natural RNA.

In 1946 a young Brooklyn-born scientist, Dr. Arthur Kornberg, joined the Ochoa laboratory for a year of graduate work. While Ochoa worked with the enzymes that might play a part in the fashioning of RNA, Kornberg who was Ochoa's student, studied the enzymes that might put together the separate building blocks of DNA. Dr. Kornberg was the first to prepare artificial DNA in the laboratory. He put a naturally occurring DNA of a virus into a test tube. Next, molecules of adenine, guanine, cytosine and thymine were added to the brew. Also, some DNA polymerase was mixed in. This enzyme is crucial for guiding the copying procedure. Finally, another enzyme, lipase, was added to finish the duplication job. Artificial DNA was obtained in the test tube. DNA replication appears to be a purely mechanical process. Natural and artificial DNA appear to replicate equally well in the Kornberg system. In 1959 the Karolinska Institute, which is on the Nobel prize committee in the field of physiology and medicine awarded the 1959 prize jointly to Ochoa and Kornberg.

DNA molecules have in them the codes which determine the type of proteins to be synthesized and the amino acids entering into each. Though there are only four different bases, their sequence can produce an immense variety of moleclues just as four letters of an alphabet can form an infinite number of words, each with a different meaning. The nucleotides carry the chemical codes of information. It is the sequence of bases that gives the keynote to protein synthesis. The chemical code, as it is understood, is one of "three letters" or nucleotides arranged in a sequence signifying the specific amino-acid.

The DNA — protein transcription presumably cannot be direct in cellular forms, for the primary DNA code apparently remains in the nucleus of the cell, while protein synthesis occurs in the cytoplasm. An intermediary "messenger" RNA is brought into play. Messenger RNA is transcribed directly from the nuclear DNA. There are many kinds of messenger RNA specifically determined by a particular segment of DNA that can be defined as a gene. It appears that the sequence of nucleotides in a given messenger RNA segment is determined by one of the two chains of a double DNA helix acting as a template, against which RNA nucleotides are properly ordered. But which one of the two DNA chains will serve as the template for RNA synthesis is yet to be known.

In the cell, the messenger RNA molecules move to the cytoplasm where each becomes associated with a number of rebosomes, the submicroscopic structures containing protein and non-specific structural RNA. In this combination, messenger RNA molecules serve as templates against which amino bearing transfer RNAS are lined up in a sequence corresponding to the coded instructions in the messenger RNA. That is, the various amino acids are being activated and enzymatically attached to "transfer" RNA molecules that serve as labelling tags. Transfer RNA molecules, relatively small, are therefore sometimes called "soluble" RNA. Each is constructed of 70–80 ribonucleotides and is folded back on itself in a hairpinlike fashion and turned into a double helix. In the regions on which the chain turns back in itself there are presumed to be the 'coding units', each made up of three unpaired nucleotides.

At one free end of the folded chain there is believed to be a "recognition" site. It is to this site that an amino acid specific to the particular transfer molecule is enzymatically attached. Thus, there is a specific transfer RNA molecule for each of the 20 amino acids. One can say that each amino acid carries a transfer RNA label that directs it where to attach to the messenger RNA template. The coding segment of the tag—the address, so to speak—is compelmentary to a coding segment on the messenger RNA. The coding units on nuclear DNA, on messenger RNA and on transfer RNA are all apparently segments of three nucleotides. Thus, if the coding unit on nuclear DNA were T–C–A, its complement in messenger RNA would be A–G–U, and the complement of A–G–U in transfer RNA would be U–C–A.

"What distinguished one protein molecule from another, giving it its marvellous uniqueness, is the number and kind of its amino-acid units and the order in which they are strung together," says Hoagland.

This genetic recipe is so complex that the entire DNA system within a human contains as much information as serveal encyclopedia sets, or one hundred large dictionaries.

Fantasy of fantasies—that the two tiny spirals of DNA/RNA determine the form and structure of all life, its functioning, its colour, its variety, and its continuity.

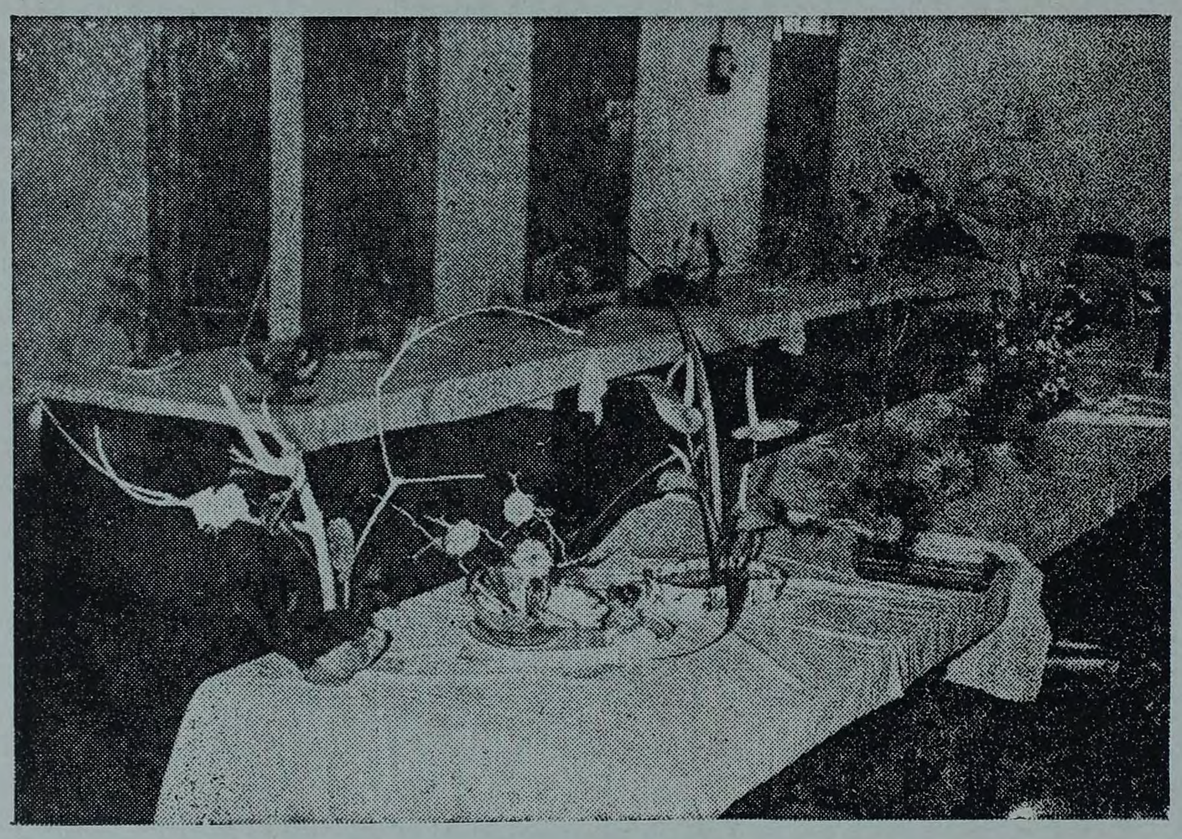
Here was life's starting point. All that the individual was to become and his relation to all that had gone before him lay in the infinitely tiny coil of DNA/RNA.

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students day



Fancy Dress



Flower Arrangement



Hair Styles

AT THE USIS SEMINAR "DISSENT AND RESPONSIBILITY"





Molecular biology is a new scientific discipline which has developed rapidly within a short time. It is the science of biological processes at the molecular level. Most living organisms, from tiny viruses to large and complex organisms, have their genetic material, a macromolecule called deoxy-ribonucleic acid DNA for short. It is the DNA which acts as the primary carrier for all the information necessary for the synthesis of cellular components. In certain plants and animals, however, ribonucleic acid (RNA) replaces DNA, as the genetic material. Genes are the units of DNA. The genetic information is believed to reside in coded form as the nucleotide sequence of each DNA unit.

DNA REPLICATION

PRAFULLA BAI, G.
II B. Sc.

A plant or animal cell has a variety of chemical constituents, simple as well as complex molecules like proteins, nucleic acids etc. During the process of cell division, as one cell divides into two identical daughter cells, all the cellular constituents are doubled. This includes the DNA which too has to replicate itself. It is interesting to know how one DNA molecule of the parent cell divides into two identical DNA molecules in the daughter cells.

The most dramatic aspect of the Crick-Watson model of DNA structure, was the possible mechanism for the duplication of DNA that was readily apparent. Obviously, the genetic information must be precisely duplicated, prior to cell division. Each DNA unit is a double helix composed of two poly nucleotide chains held together by very specific hydrogen bonding among the nitrogenous bases. The size of the various units and their capacities to form strong hydrogen bonds, ensure that only certain base-pairings are possible. It one chain has adenine nucleotide (A) at a certain point, the other chain must have a thiamine nucleotide (T). Similarly, one chain must have a quainine unit (G) corresponding to a cytosine (C) unit of the second chain. The nucleotide sequence of one chain determines the nucleotide sequence of the second chain, that is, the two chains have complementary structures.

Should these two chains of the double helix be separated, each one could form hydrogen bond with free nucleotide units. The specific nature of such bonding would ensure that each chain would align the nucleotides in complementary fashion. The formation of internucleotide linkage would result in the creation of two new DNA units identical to the original one. This process is represented in diagramatic form in figure 1 showing on page 32.

The capital letters are the initial letters of each of the different DNA bases.

Present evidence indicates that DNA duplication does not involve, as an initial step, in the complete separation of the double helix into single strands. Rather, a separation of only a few base pairs at one end of the helix is followed almost at once by base pairing with free nucleotide units, and formation of phosphodiester bonds. This process continues one nucleotide pair at a time along the entire length of the helix. The two new chains are

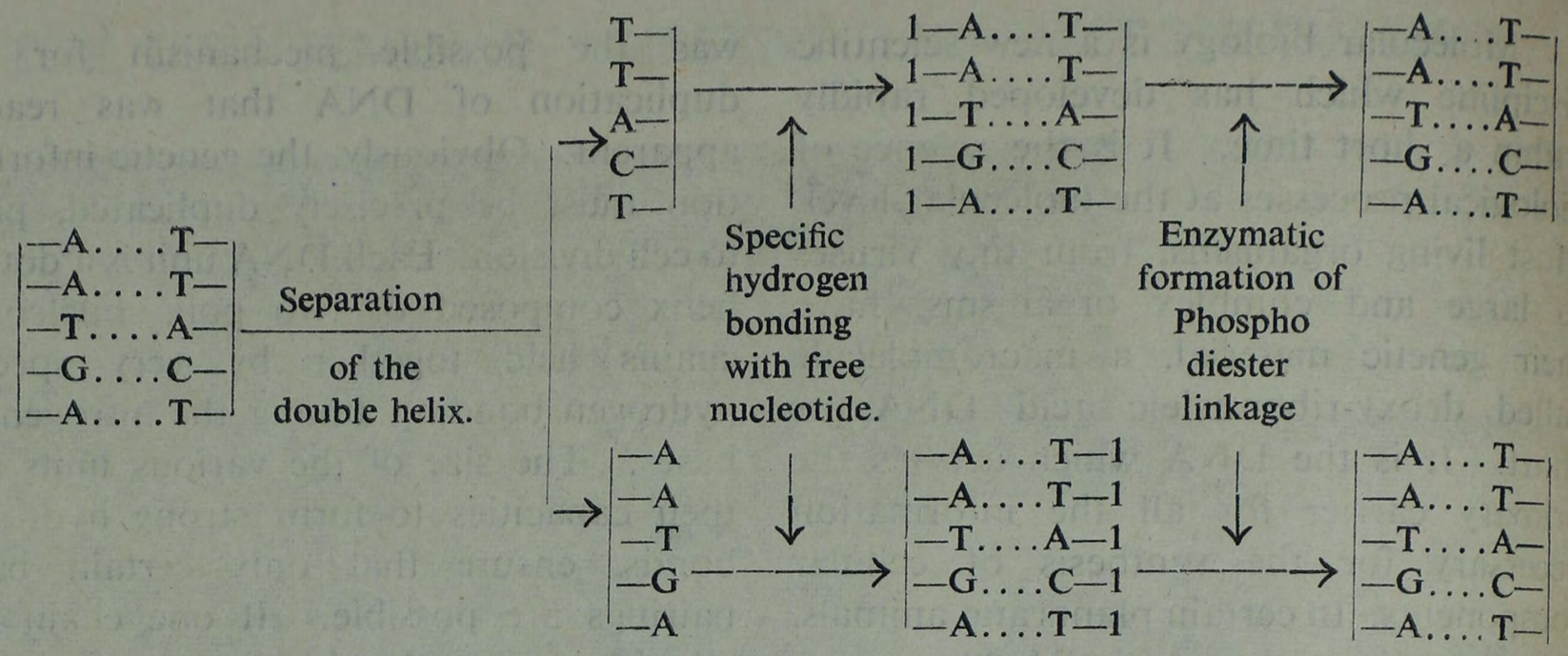
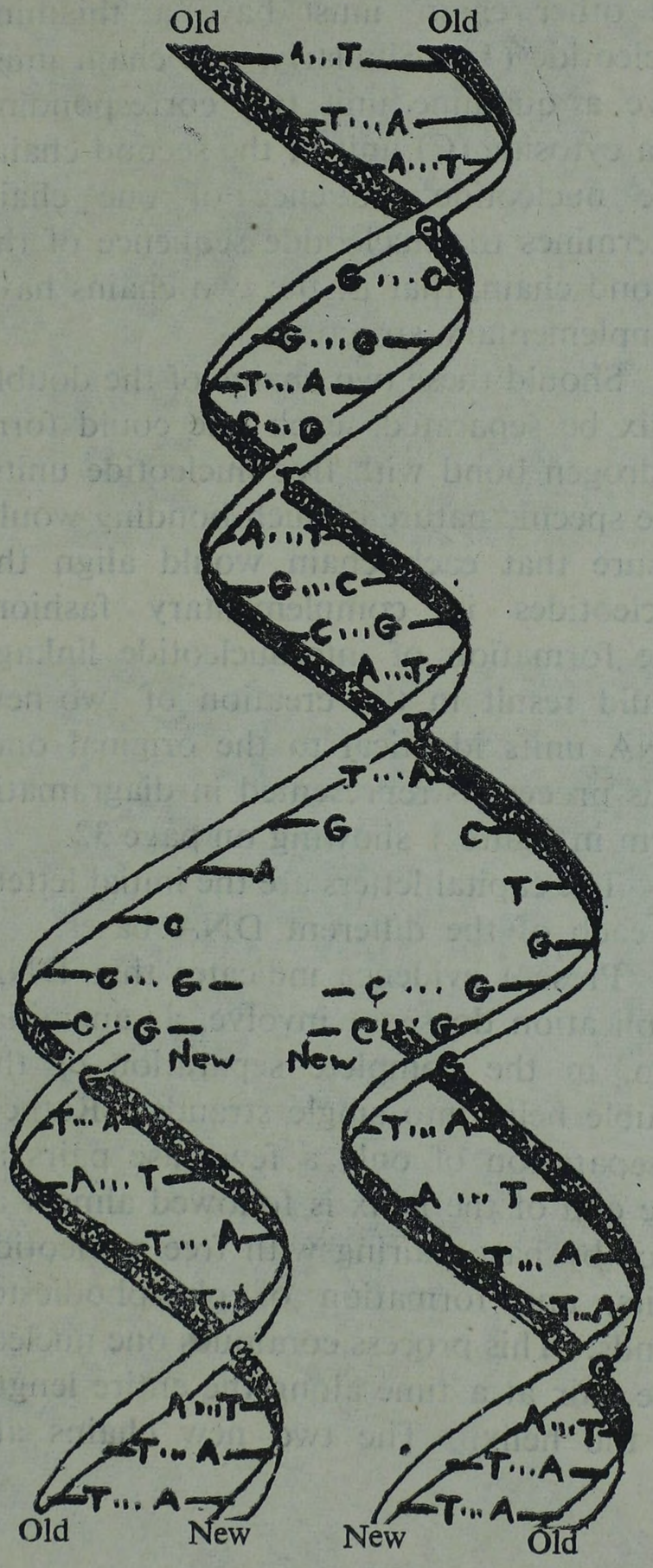


Fig. 1. Replication of a portion of a DNA molecule.



formed as the old chain separates. This can be diagramatically represented by Watson-Crick model as in figure 2.

The credit for efforts to synthesise DNA in vitro—outside the cell, in the test-tube—goes to Prof. Arthur Kornberg of Stanford University U.S.A. who was awarded the Nobel prize in 1959, in recognition of his pioneering contributions in this field. Kornberg and his co-workers looked hard for an enzyme which would synthesise DNA in the extracts of a common enteric bacterial species, Escherichia coli, isolated from sewage. They named this enzyme as DNA polymerase and now it has been found that this enzyme is present in all living systems. This enzyme catalyses the synthesis of p›lymers of deoxyribonucleotides from d. oxyribonucleotide triphosphates in the presence of an added DNA template.

However, the crucial experiments soon belied on the early hope that the Watson-Crick model of DNA replication could be repeated in the test-tube. In fact, it was found that, the product of the polymerase reaction in vitro, had a complicated structure unlike that of the natural DNA and the product did not separate itself from the template.

However, a successful test-tube synthesis of the DNA of bacterial virus Phi X 174, was achieved by Prof. Kornberg and his collaborators. This DNA molecule has a molecular weight of 1.6 million and is 4,500 nucleotides long. This synthesis, however, made use of both the natural DNA and the DNA polymerase isolated from bacteria. Kornberg's achievement proved to be of great significance in molecular biology. It proved the possibility of synthesising living cells in the test-tube.

Genetic Abnormalities

MUKTHA BALIGA, B.
III B. Sc.

Genetics is the youngest of biological sciences and is drawing greater attention than any other branch of biology. The Geneticists are showing their way deeper into the hidden mysteries of the 'stuff' of genes, the hereditary units, as to how they came into existence, what their chemical constitution is, how they influence the development of body and hence the flaws they cause sometimes in the system of man due to their improper working.

It is only within the past two decades that genetic diseases have come to be widely recognised as an important category of ailments in man. We now know hundreds of such diseases, some frequent and many of great medical significance. Essentially all diseases can be thought of as constituting a spectrum of the relative importance of genetic and non-genetic factors. At one end are conditions that are predominantly genetic but not exclusively so, for, most diseases can be influenced by environmental factors. The genetic basis is usually quite evident in the rarer, more strictly genetic disorders. The inheritance and the metabolic nature of the genetic diseases were first deciphered by Garrod as early as 1902.

Study of genetic diseases and the method of inheritance is an interesting topic. It is especially so in human beings. Many of the genetic diseases are passed from generation to generation as sex-linked inheritance. That is, the sex chromosomes of an individual not only carry the characters for sex, but also the genes for somatic characters.

It is evident that modern living conditions cause an increase in the incidence of mutations by greater exposure to high energy radiation, through the use of X-rays for diagnostic and therapeutic purposes, through industrial exposure to radiation and probably, through the use in food and cosmetics of chemical compounds that produce mutations. It can be estimated that about one person in 20 to 25 is born with a significant genetic defect, or 3,000,000 to 4,000,000 of the estimated 80,000,000 persons born each year; perhaps 1,000,000 or more carry genetic defects that are relatively well understood genetically; 70 % of these are estimated to be due to dominant traits and 25 % to recessive traits, both involving genes that are not sex-linked; the remaining 5 % are estimated to result from sex-linked mutant genes like colour blindness and haemophilia.

Another estimate of genetic interest and significance is that, on the average, each individual carries two to four different recessive lethal genes in his or her sex cells. A recessive lethal trait results in death only if the defective genes are carried in both chromosome sets (one set received from each parent of an individual.) Deaths of this kind do not happen with a high incidence because there are great many different lethal genes; therefore the chance that two of the same kind will be inherited by any given individual is small.

Consequently, marriage between relatives, increases the chance for inheriting the recessive genes in pairs; however, good traits, as well as bad, may be emphasised.

Some of the autosomal recessive diseases are Phenylketonuria, Galactosemia, Cystinuria and Albinism. Phenylketonuria is the result of the absence of the enzyme phenyl alanine hydroxylase. This enzyme breaks down any surplus of the amino acid phenyl alanine beyond the needs for protein synthesis. A victim of this disease cannot convert phenyl alanine into the closely related amino acid tyrosien as physiologically required. Phenyl alanine therefore accumulates in abnormal quantities in the body; some are converted to excessive amounts of other derivatives, one being toxic, the phenyl pyruvic aid. This affects the nervous system and causes feeble—mindedness. The effects of the disease can be reduced or largely prevented, if diagnosed soon after birth, by reducing the amount of phenyl alanine in the diet to an amount just sufficient for protein synthesis with no surplus to produce toxic phenyl pyruvic acid.

Galactosemia is the inability to change the galactose half of the milk sugar molecule to a usable form, due to the lack of the enzyme that catalyses the conversion. It also results in damage to the central nervous system with consequent mental retardation and often death in childhood. Like the former disease, this can be circumvented through the use of a diet free of galactose.

Albinism results due to the lack of pigment Melanin. This pigment is found in varying quantities in the skin, hair and iris of the eyes of the great majority of people. The presence of a pair of recessive genes, however, blocks the production of Melanin. So far, no way has been found to prevent or correct this trait.

Sugar diabetes is believed to be inherited as an autosomal recessive trait. It is estimated that as many as 5 in every 100 persons may be homozygous for the causal gene defect but that only about 1/5 of these develop obvious symptoms. Genetic analysis is difficult because the disease is often expressed later in life and may be influenced by the type of diet and other factors. As is well known, this type of diabetes can usually be controlled by the administration of insulin.

Sickle cell disease is a good example of a simple primary effect of a gene defect resulting in multiple end effects that by themselves would appear most complex and difficult to interpret. James V. Neel and others have pointed out that the following difficulties may be encountered in sickle cell disease as a direct or indirect consequence of the simple substitution of two valone amino acid units for glutamic acid units in a haemoglobin molecule containing 600 amino acid units. This results in weakness and lassitude from anaemia; poor physical development, dilation of heart and heart failure. Enlargement and fibrosis of spleen occurs as a result of the collection of a large number of damaged red blood cells.

Autosomal dominant diseases are very interesting too. A remarkable disease first appeared in 1716, with the birth of Edward Lambert in England. His parents were normal and Edward himself was not unusual at birth. But after a few months, his skin began to turn yellow. Later it became black and developed rough bristly scales with cylindrical outgrowths, upto an inch in length. Known as the 'porcupine man', he was widely exhibited as a curiosity. At the age of 24 he had a similarly affected son and possibly 4 other afflicted children.

This trait has been traced through 4 generations. The first appearance of the trait in Edward must have been due to gene mutation.

Among other diseases that appear to be inherited as simple dominants are Waadenberg's disease, developmental and pigmentational abnormalities of the eyes, plus deafness; aniridia, absence of retina, one form of muscular dystrophy, abnormally small eyes; arachnodactyly or spider fingers and abnormally long fingers and toe bones.

Some of the sex linked diseases are haemophilia, colour-blindness, etc. One of the classical examples of sex-linked recessive traits in man is haemophilia, a defect in the blood-clotting mechanicsm. Haemophiliacs known as 'bleeders' often die in childhood for every minor cut is a threat to life. This sex linked recessive condition occurs with a higher frequency in males than females. One form of haemophilia is the result of a deficiency of one of several proteins involved in blood-clotting, an essential specific globulin protein. This globulin can be artificially added to facilitate blood-clotting temporarily.

Queen Victoria of England was a carrier of hemophilia who passed the defective gene on through several lines of descent among English and European royalty. There is fairly convincing evidence that the gene for haemphilia was not carried by either of her parents. It presumably arose by mutation in one of her immediate ancestral x chromosomes.

Another pedigree which points to y linked inheritance is hypertrichosis, the growth of unusually long black hair in the ears. At birth, the hypertrichosis is usually limited to the ears, but during early childhood it becomes generalised. The hair is four to ten inches long, silky and varying in colour from silvery grey to pale yellow. Hypertrichosis is transmitted as a dominant trait. The first well recorded example is that of Peter Gonsalves in 1556. Soon after birth, long black hair began to grow all over his body. His facial hair had to be curled so that he could see. Three of his children were hypertrichotic.

Chromosome abnormalities including duplication of deficiency of whole chromosomes or parts and inversions have long been known in plants and animals. It was only in 1959 in France that it was discovered that the presence of an extra whole chromosome caused Mongolian idiocy. Afflicted persons are retarded in both physical and mental development. The life expectancy of Mongols is very low, but a few have been known to reach maturity and fertility.

Most of the genetic diseases are non-infectious diseases, for disease germs are not involved but they are inherited from generation to generation. A much less desirable situation will be encountered with incomplete circumventions that increase the number of affected persons who are a burden to society.

One possible counter measure for the abolition of the serious genetic diseases is that of persuading afflicted persons to adopt children rather than have them through normal reproduction. In the case of dominant diseases, this is easily done. In the cse of recessive diseases, it is less easy since the carriers of the latter cannot be identified.

THE LAND OF MY DREAMS

NORMA SALDANHA,
III B. Sc.

Some day my heart will find its fill
Somewhere beyond the hills
In a land so like a paradise
Replete with sunshine and blue skies.

A land so rich and so fair,
I know my home lies there;
It's a home of priceless charm
Filled with peace and quiet and calm.

This do I surely know—
There's where my heart longs to go,
I'll have no sorrow and no care
In a land so precious and so rare.

There's a soft yearning deep inside me
To see the land where I long to be,
It's a spelndid land of joy and happiness
It's a land of warmth and tenderness.

ZOOLOGY STUDY TOUR

P. C. PUSHPA
&
GEETHA RAMAKRISHNAN

The 26th December. Great heavens here it comes at last. That mild poignance which always goes with long waiting, now gives place to an overwhelming excitement. The siren booms. God! it's eight O'clock. The heart gives a thud, yes, just half an hour more. There is hurry, there is confusion, and all's amiss. Well, the clouds soon disperse. At the station it is all sunshine. The Madras Mail stands still, beaming long. And out it gives the parting whistle. The cold winter air now rings with shouts, yells and screams too. "A zoo somewhere in the vicinity?"—the passers by pause and wonder. Oh no. It's a vociferous outburst springing from an excited bevy of forty-nine girls, out for a zoological expedition to Madras. But then, who's she, that golden silence, amidst the grating din? Our Lecturer, and that makes a herd of fifty.

The train gains momentum, and as it rattles its way swift and sure, jokes are cracked, songs murderously sung and stories told that teach one how to be bored. Thus singing and shouting, laughing and yawning, things that herald the destination are felt. And soon, the train creaks into a final stop. The heart goes pit a pat. The mind is thrown into a state of suspended animation. All because of the confused noise of the bustling throng at the Madras Central station. A Herculian effort elbows its way out. And there it is, the bus. All graceful like a damsel in waiting, all inviting too.

A cozy drive then ensues, but not a long one. For it is reached, the Queen Mary's College Hostel, verily a fine amalgam of old and new. Haste sees through the breakfats, bath and a change of attire, and ere the next hour strikes, the Moore Market comes into focus: A shopper's paradise indeed! And then its "Camelot" at the Saffire, one of the notable attractions of Madras. A pleasant walk at the Marina Beach, draws the curtain over a memorable first round of the tour.

The next day dawns at 5.30. Perhaps to many, for the first time. It is said since days of yore, "Punctuality did never hold a lady's hand". This tradition is broken, and all's dead set well on time. But the bus, no, it is still to come. A little waiting and that's all, for it arrives at six, and then off to Mahabalipuram. On the way, a stop at a mosque and then at the Kovalam Beach nearby. Lo there! What is it! Neptunus, are'nt they? Yes, they are. A haul of three brought in by the fishermen.

At Mahabalipuram, the haven of monumental architecture lavished upon a cluster of famous temples, the gloating eyes are fed with the pride of antiquity. The shore temple, the five Rathas, Arjuna's

penance, the Butter Ball and myriad others seem to perpetuate the great cultural heritage of India. Thd Butter Ball in particular is a food for wonderment. It is a huge 'Ball' of solid rock resting as it seems, most precariously on the slope of a hill. Even 12 sturdy horses harnessed to it, would not make it budge a jot. Thus is described the enormous strength of this wonderous object.

A brief sojourn at the Airport marks the highlight on the way back to Madras city. There the intricacies of aeronautics are explained while taken round the inside of the aeroplane.

Lunch over, the journey is set for Ennore. The Museum visited has a good collection of zoological specimens rare and interesting. Equally interesting are the fisheries; there, the various processes involved in the processing of shrimps in deep fraeeze for export are explained with everything fishy to see, to breathe. The shrimps are peeled and then weighed. They are then passed directly to the washing machine and washed till they are completely clean. Then brining takes place; i.e. they are placed in brine having six degrees of salinity and are steeped in this brine for ten minutes. The brined shrimps are then placed in a packing mould into which a sheet of foil has been laid. Thereafter they are placed in an absolutely clean box, and these boxes of packed shrimps are placed on refrigerating trays and stored at 0°C, until frozen. The boxes are then packed in a clean outer carton, which is then glued, sealed and marked with the production week, production place and the produce type and quality. These cartons are then immediately stored in the freezing room for storage, the temperature of which is between –28°C and –32°C. It is exported to foreign countries like Japan and America. Since shrimps are something of a delicacy in foreign countries, they are sold at very high rates—7 dollars per packet. Besides we also saw there a huge shark, nearly 10 feet long, which had just been caught by some fishermen from the Ennore coast.

Multifarious activities steep the next day to follow. It gets a solemn start through an earnest prayer first at the St. Thomas Cathedral and then at Kapaleeswarar Temple. The next was the Egmore Museum —a tall impressive edifice. The biological element is struck agog by the specimens pertaining to the same. There were a large number of specimens there, in fact all. It is thus, not possible to mention them all, but to list a few, they are—Pythons, Pytas, Burgarus coeruleus, Najanaja, Naja hanna, Vipera ruselli, Boiga, Enhydrina, Crotalus etc. among snakes. The other noteworthy reptiles seen were Phrynosoma, Plychozoon uromastix, Trionyx Species, Alligator, Caiman etc., The section of Aves seemed interesting with the colourful and beautiful birds. The notable birds seen are Struthio Camelus, Rhea americana, Cassowary, Apteryx australis, Palecanus phillippensis, Pelecanus cristatus, Serpentarius secretarius, Pavo, cristatus etc. and of course the common ones such as the ducks, quail, bustards, cranes, wood pecker, king fisher etc.

Among mammals, were present the Echidna—an egg-laying mammal, Opossum Macropus, Vampyrus spectrum, Pteropus; a number of monkeys such as Loris, Baboons, Macaca radiata, Gorilla, Chimpanzee and also the lions, tigers, panthers etc. Mention has also to be made of the huge skulls and tusks of the proboscidians, the skeleton of Balaena with the whale bone and the skelatal structure of various other animals. All the other sections too proved to be equally amazing. Under the guidance of our Lecturer Miss L. Velaya-

dhan we went through these exhibits of the wonderful museum. This visit to the museum proved highly beneficial.

The rippling stream now flows into the Art Gallery. Here the tadpole artists in the visiting lot, wince and gurgle out their pride at the thrilling masterpieces of the famous artists of India. But modern art, well, seems as mysterious as a modern lady beneath her powdered mask.

Next follows a quick visit to the Gandhi Memorial and then the Children's Park—a miniature zoo in itself. Before winding up the morning activities, Thirukkalikundram Temple calls the attention. With undaunted spirits but complaining muscles, the 607 steps are climbed to reach the top whereupon is enjoyed the sight of the two birds, which reach the temple daily around 12 O'clock. This daily visit of the birds is said to be a sort of daily migration. There the birds are fed with special offerings and this is considered to be one of the places of worship.

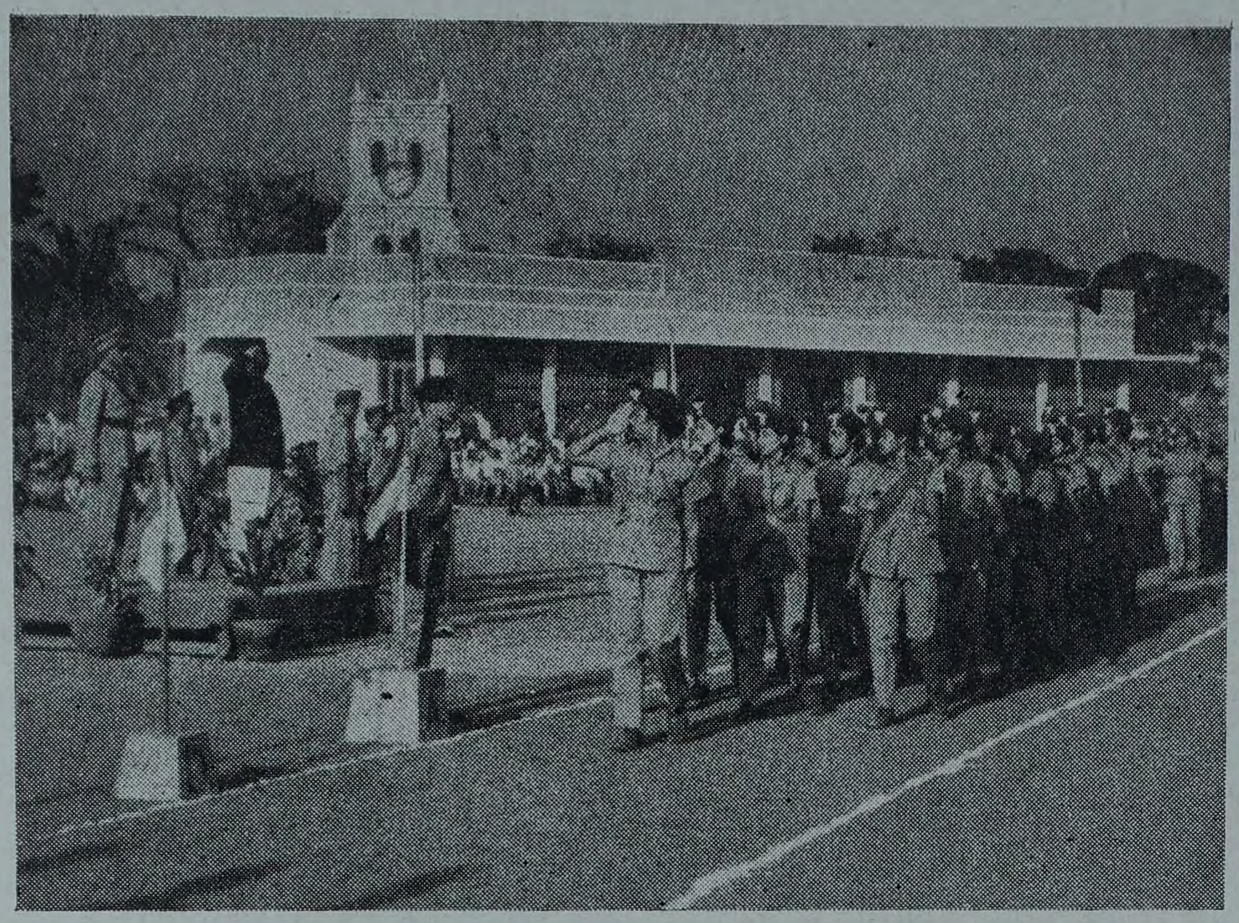
In the afternoon, the zoo is explored. Among the many attractions, the most noteworthy ones are the albinos of peacock and deer. A shopping spree at the Burma Bazaar brings to the end a most exhilarating day.

The 30th day of December takes a round through the city of Madras, with amusing breaks at the Radio Station, the Marina Aquarium and the numerous colleges including the Presidency, Stella Marie's, the W.C.C. and M.C.C. and Madras Medical Colleges. The noon is spent at the exhibition. The day passes swiftly with a delightful time at the 'Buharis', among other happy hours spent. Thus our trip to Madras was very rewarding and we are indeed thankful to our Lecturer Miss Velayudhan who led us to all these places.

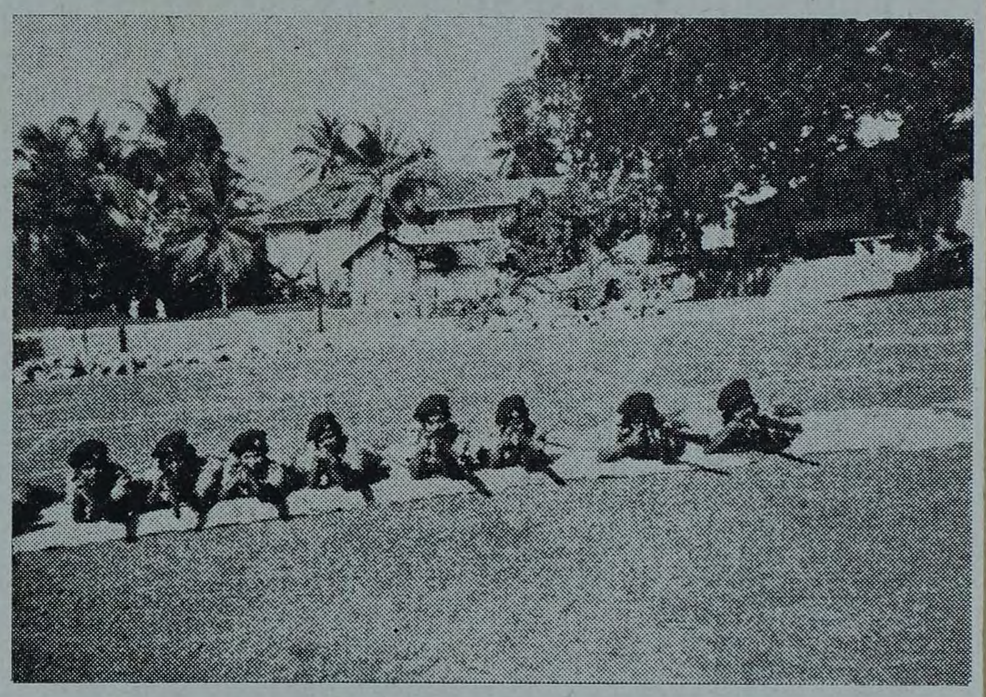
The 31st steps in all too soon and with a long lingering look, the old year bids farewell and as the cathedral bell rings in the new year, the train, with its long array of a memorable past, squeaks into a stop.

And it's Mangalore again!

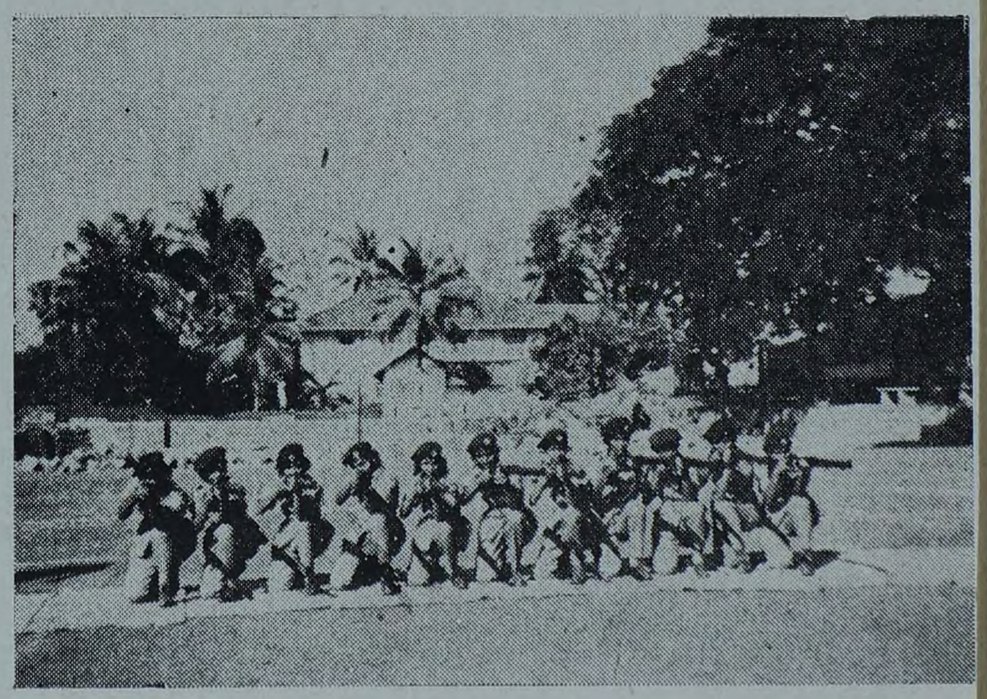
N. C. C. IN ACTION













The Governor writes a Message and hands it to the College President.



The Prize Winners



ON

THE

OCCASION

OF THE VISIT

OF

HIS

EXCELLENCY

SHRI

DHARMA VEERA

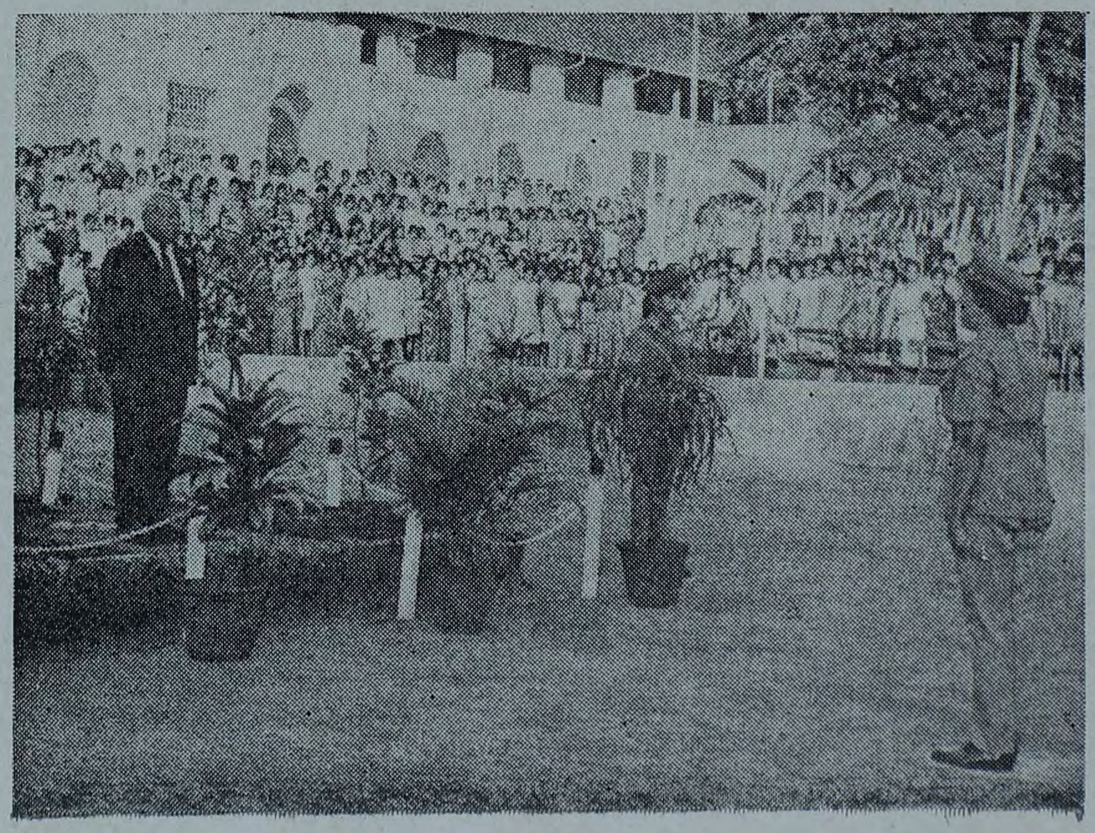
GOVERNOR

OF

MYSORE









The Principal reads the Report



Welcome.....Kripalini Shastri



The Governor speaks

on the annual prize distribution day

TIME!

THE GREAT INEXORABLE FACTOR

NIRMALA LOBO, *II B. A.*

How True is that saying—"time,, marches on". The child of 'today' will be the 'grown-up' of tomorrow. But will that grown-up have happy memories, or will he regret the time lost during his past years? Will he wish that he may have his childhood back and start his life all over again, so that he may rectify his past mistakes?

Time is very impatient. 60 seconds passed is one minute gone. 24 hours gone is one day passed. Tomorrow will soon be today; today will soon be yesterday, and yesterday belongs to the past; 365 yesterdays will be 'last year' and thus a chapter of our lives is closed forever.

Time is a bottomless abyss. Time began when the world began, and it shall end when the Great First cause shall command it to do so and the world ends. Of course, Time stops temporarily for a person, when thee person is 6 ft. beneath the ground, but Time shall stop for everyone when the end of the world shall come. 'Time and Tide wait for no man'. However much we may wish old Father Time to remain with us, even for a little while, unheedingly, he marches on; however great one may be, however powerful, Time defies him for no one can control Time except the Creator of the Universe, who holds the world in his hand.

Every New Year brings the realization that one year is subtracted from your life span! Very soon, when you will be old, and living your last days, the doctor will announce that there is no hope for you and that your life is nearly over. What then? Will you be counting your last hours, last minutes, last seconds? Bringing back memories? All the good times, your friends, all the laughs ..... all gone! Gone to the grave from whence there is no return.

'Just about the time we learn to make the most of life, most of it is gone', some one has declared. Well, naturally, after all, as time goes by, one gains more experience. The wounds of Time, inflicted on one, soon heal, but the scars serve to remind one of that skilful adversary, Time. But, when at last the person learns how to match his wits with Time, half his life is over!

In order to keep up with Old Father Time, we have calendars. These give us the 'day-to-day' report of our daily march with him. The cheery face of the clock helps to remind us that every second counts. In olden days, people used sun dials and the hour glasses to measure Time. They, also used to have the hour-candle. This was the candle marked at brief intervals. The time taken for the distance between the two 'marks' to burn was judged to be an hour. Naturally after one 'interval' was burnt, an hour had passed.

In Scripture, it is said that there is a time for everything—

A time to be born and a time to die.....
A time to kill and a time to heal.....
A time to weep and a time to laugh.....
A time to get and a time to lose.....
A time to rend and a time to sew.....
A time to love and a time to hate.....
A time of war and a time of peace.....

A great deal of happiness in our lives depends on how we spend our time. Great men, successful men, attribute their success to how timely they were.

Time is a very good farmer. As he goes on his way, he plants seeds into man's mind. As a result of his careful sowing little 'idea' shoots begin to sprout, which later turn into the tree of invention.

How true is that saying—'Time marches on'. The child of today will be the grown-up of tomorrow. But will that grown-up have happy memories, or will he regret the time lost during his past years? Will he wish that he may have his childhood back and start his life all over again, so that he may rectify his past mistakes? Oh, that all youth may make use of their precious time, and heed Samuel Johnson when he writes, "catch, then, oh catch the transient hour. Improve each moment as it flies ..... ."

Then only we shall, as we sit in the garden of memories and, in retrospect, turn back the pages of our lives, live with the satisfaction and joy that we have spent our time wisely.

THE CRAFTY CRAFTSMAN

NILIMA UDIAVAR, *II B.A.*

There lived in the village of Thumbaknoor a poor old goldsmith. He had three sons. When he had reached the proverbial age of three score and ten and found that life was fast ebbing thereafter, he called to his bed-side all his three sons, and anxious about their future, questioned them one by one as to how each proposed to eke out his livelihood after his death.

The eldest son bowed low before the aged father and said: "Pithaji, you were kind enough to train me in the family profession of goldsmiths. Wealthy people will approach me with gold and I will manufacture the ornaments to their taste and requirements. The wages I earn for my honest work will be my income, and I would live on the same maintaining myself and my future wife and children." "Let God bless you" said the old man and dismissed him.

Thereafter he called his second son and put him the same query. The second, son, a bit romantic than the elder, said: "Pithaji, I need not say that I am a goldsmith, a profession taught by you. People, as usual, will approach me with gold to be converted into ornaments. I will surely manufacture the ornaments, but in the process mix a little of copper to gold and give the impression to the customers that the ornaments are cent per cent gold, and earn not only the wages for my work but a little of gold also. This tactic of mine will enable me to live a life of ease instead of a hand to mouth existence. "Carry on," said the old man and dismissed him with his blessings.

Finally he called his third and the youngest, and with anxiety writ large on his wrinkled face put him also the same question. The old man was particularly worried about the boy. Although the most intelligent of all his three sons, he was wayward from the very beginning. He would not stick to anything, but waste his time with his friends. "Pithaji," the boy smilingly said, "do not worry about my future. I will live on my wits. You have taught me the family profession. Besides you have given me the knowldege of the three R's, an asset which none of my brothers has."

When the father was worried about the meaning of "living on wits", the boy made this clear to him. "Rich people with ample to spend and to spare will approach me with lots of gold to be converted into ornaments. I will never return an ounce of gold, but will get all my wages and on top of that great honour and praise from those very people. I will then live a life of ease and comfort." The old man with the words "Let God help you", closed his eyes for ever.

The silent spectator to this family drama was the village Purohith who was specially called to the house to recite some

sacred religious hymns to the dying old man so that his soul could go straight away to heaven after death.

After the death of the old man, days and months rolled on in the family of the deceased goldsmith with not much seeming change in the family status. The village Purohith referred to was incidentally a trustee of the village temple, and the trustees, in one of their meetings, decided to install a new gold idol in the temple. A huge amount was collected from the devotees of the temple for the purpose. Gold worth about a lakh of rupees was purchased for the idol, and the trustees, one fine morning, sat in council to decide as to which goldsmith, the gold was to be entrusted to, to be made into an idol. The village Purohith suggested the name of the last son of the deceased goldsmith and convinced the other trustees that the young man was a good craftsman and they could get the finished idol out of him. The rest of the trustees immediately agreed, and the goldsmith was summoned into their presence. The resolution of the meeting was told to him, and the making of the idol was entrusted to him on the spot. In the presence of all the trustees the Purohith made it clear to the goldsmith that the idol would be made at the Purohith's residence, that he would be searched every time he got into the work room and got out of it too. The young artist immediately agreed to the conditions and the next day the making of the idol started in right earnest. The artist was searched both when he got in and got out, so much so he had not the ghost of a chance even to smuggle a brass pin out of the room.

The idol, when completed, looked a real piece of art, and an auspicious day was fixed for its installation. A huge gathering collected on that particular day, bands played beautiful music, and trumpets and conches blew. The procession carrying the idol on the head of the poojari started with all fanfare accompanied by hundreds and thousands of devotees chanting religious hymns. The young artist walked majestically by the side of the idol with all sorts of presents heaped on him. He was given a solid gold bangle which he exhibited on his left wrist. A silk shawl with a beautiful garland was dangling from his neck. He was liberally paid all his making charges. The procession wended slowly through crowded houses, and anxious people were craning their necks to see the idol from all vantage positions.

In front of the temple was a huge tank. When the procession reached the tank premises, the young artist suddenly ran to the trustees and with folded hands requested them, that before the idol was installed he should be given an opportunity to purify it by dipping it in the tank waters. His contention was that the idol was made with his human hands which might have committed so many sins in this world, and hence the request. The trustees readily agreed to the request and the idol carried on the head of the poojari was temporarily transferred to the head of the goldsmith who thrice plunged it into the tank water and returned the same to the poojari in full view of the thousands of devotees who were watching the scene from the four pillars of the tank. The procession, which had temporarily stopped, now proceeded further, and the idol was installed at the auspicious moment. Thousands of people, both rich and poor, were fed and the artist was further loaded with presents of all sorts.

The installation ceremony over, the name of the artist was sky rocketed. Orders for the manufacture of ornaments

flooded him from all the corners of the country. He became rich almost overnight and literally rolled in wealth. A couple of years passed and one fine morning the village Purohith accidentally accosted the artist on the roadside. "Look here, Mr. Goldsmith, if you remember well I was present at the time of your father's death," said the Purohith, "and you have not kept the promise made to your dying father." "Promise, Sir", said the goldsmith, "I have kept every word of it." "Certainly not", said the Purohith. "You had promised your father that you would not return an ounce of gold to whomsoever came to you for the manufacture of ornaments. In fact, I got all the gold I gave you for the manufacture of the idol." "Sir", said the artist "you are mistaken, I had not returned an ounce of gold you gave me despite the strictest vigilence you kept on me."

"Sir," said the artist, "I was working in your house for full six hours in a day with the idol, with the result I produced an exact replica of the gold one with all the minutest details. On the previous night of the installation day I quietly took the copper idol to the temple tank and immersed it in water. The next day when I went down to the bottom of the tank with the gold idol on the head I plunged it to the surface twice, but on the third occasion I kept the gold idol at the bosom of the tank and carried the copper one up. Being an exact replica of the original one, none of you could know which is which. I had given only a golden coating, but inside it is all copper. If you are very anxious, you can go and test the veracity of my statement. Please tell me now, whether I had kept the promise given to my father or not." This question simply jerked the carpet under the Purohith's feet.

First Dewali Away From Home

VIKNESWARI PARAMPALAM,
P. U. C.

Tomorrow will not be like today
Man too will not remain the same
Life is at its change all day
And fate stalks every name.

Home is filled with love and fun
Papa and Mamma, Summy and Doll
Oh! how I long to be again
With loved ones in our family hall.

Papa behind his daily paper
Summy at his play all day
Dolly lost in the latest novel
Mamma's thoughts straying miles away.

Dewali is a night of light
The house is filled with joy
Papa away from his usual work
Whispers my name in a loving voice.

"I dreamt of Lula," Dolly says
"Here is Lula's favourite dish,"
Mamma cries
'And here's her toy" Summy mourns
'I miss my little girl," Papa sighs.

Though I have planned my day
My mind is two thousand miles away
With heart and thoughts in rapid flight
During this diwali night of light.

"CHITRANGADA" — A BALLET



Chitrangada in the company



of her maidens



is surprised by a deer and tries to capture it





with her son Babruvahana



Chitrangada trains her son



The battle between



Arjuna and Babruvahana



The death of Chitrangada



She is hailed as the heroine of Manipur

SHALINI SHANBHOGUE,
B. A.

Love Thy Neighbour

Having lived in a large rumbling house all my life, I have often envied my friends their neighbours. Ours is the only building in the compound. The house in the adjoining plot is bleak and empty. So there you can see how completely shut-off I feel.

Throughout school and college I have listened avidly, pathetically, almost sadly at the tales my friends told me about the people next door. If beggars could be choosers then I would choose to live in a multi-storyed apartment house. Then it would be my turn to make my friends laugh until their sides were fit to burst.

How often have I collected them, sorted them, labelled them, cherished them in my mind! The newly wed Mrs. and Mr. Singh. Oh! the prolonged goodbyes, the happy reunions, the perennial giggling and ringing laughter. Or Mr. Dev Tejpal, the elegant bachelor. Late nights and the cynosure of all eyes when he brought home a lady in tights.

The old-fashioned, religious minded, aged couple the Iyers. Children away. Time on their hands. Telling their beads. In contrast were the Kapurs—every inch the 1970 family. Mr. and Mrs. constantly fighting and trying to keep up appearances in vain. The daughter Smeeta having a carload of friends who spell picnics, films and fashion.

Then the dread of all housewives (including mummy). The neighbour who smiles oh! butter-would-not-melt-in her mouth. "May I have just a tablespoon of vanilla essence? Mrs. Smith .... May I have just a cup of sugar, Mr. Kumar.... The boss is coming home today ....." She adds gushingly as if that were enough justification. Last but not least is the Indian version of Denis Mitchell. My sympathies Mr. Wilson, I mean daddy!

Thus runs my imagination on and on, looking forward to the distant day when I shall have neighbours of my own. Noisy, quarrelsome, cranky or irritating, quiet, helpful, thoughtful or pleasing, neighbours will be neighbours. Try me as they will, I might get tired, annoyed even disgusted but 'Admit you were better off without them,' sez you 'never, never,' sez I.

WILD LIFE IN EAST AFRICA

(TANZANIA)

A VISIT TO THE GAME RESERVE AT LAKE MANYARA

SOOSAMMA SAMUEL

"Nature has a beauty of its own" wrote Tagore and that is true to the core. My visit to the Game Reserve proved this beyond a doubt. At last my dream was going to be fulfilled for we had decided to visit the Lake Manyara National Park. The great day dawned and we started off in a Land Rover.

The first part of the journey was rather dull because it was too dark to see anything, but once the sun rose we found a lot to do. We passed a safari car which looked as though white dots had been painted on the brown body of the car. "Oh! my mistake. It is actually a white car but just imagine the state of a car after having passed through muddy ditches then over dusty roads!! Such are the roads of Tanzania. We passed a number of cars, buses, Negro and Masai dwellings. We reached the outskirts of the park at about 9 a.m., had our breakfast and then went to the gate from where we hired a guide and proceeded to the park.

A short distance away we came across some apes and monkeys. We paused to say a 'hello', for after all they are our "ancestors," aren't they? We heard a crackling sound from the left and what should we find but a lone rogue elephant! The way it shook its body and stamped the ground made my heart jump into my mouth. We naturally beat a hasty retreat. The same thought in all our minds—a smashed Land Rover and poor us under the elephant's feet, like chutney for idlis!! Sometime later we saw two slender tree trunks, at least that's what we thought they were, then two more, and the funny thing was that they were coloured like modern art. Looking up we saw the colourful form of a giraffe. Peering through the grass we saw that there were many and not in the least bit bothered about us, moving gracefully on their long legs, with their long, slender necks looking down at us over the tree tops. Has it ever occurred to any one that giraffes are dumb!

On either side, gazelles and bucks flitted past. The elephant grass was really tall and we couldn't see two feet ahead of us. We had left the roads in search of animals. Suddenly I found myself gripping the back of the seat—no, not with fright. We had come into a clearing and about ten feet away was a herd of elephants. Some broke the overhanging branches, which were then complacently placed in the mouth by the long trunk. Some distance away we saw two lovers!! The bull elephant pulled a tus-

sock of grass, beat it against its leg and then passed it lovingly to the cow elephant. Our eyes bulged out. Imagine meeting these lovers in this forest!! We backed out but I couldn't help looking in their direction. What should I see but their backs, for both had decided that they were in a rather public place!!!

We were keeping a vigilant look out for lions. One word about the lions in Lake Manyara—they climb trees! This is the only place in the world where lions climb trees. Soon we spotted them, some lions and lionesses with their cubs. The cubs were just like playful pups. They climbed on their majestic dad, nibbling at his ears and peeping through his mane. Poor dad!! How patient he was, though he did give an occasional scolding which made the cubs lie down for some time, looking up into his eyes appealing for mercy! His majesty glared at us. Usually lions do not mind tourists but when the cubs are there it is another matter altogether.

Near the shimmering lake shore with its hundreds of flemingos we saw a herd of buffaloes. They looked so frightful that we made a fast get-away. We went out to the other side of the lake which was barren as the rising water destroyed the plants. The roads were muddy and the Land Rover was being driven really carefully. But alas! our luck was out! Down we sank. The engine roared and the tyres reeled but we made no progress. Well, we had to face the fact—we were stuck! The first thought that entered our mind was to fall on our knees and pray, and though I didn't fall on my knees I really sent my SOS heavenwards! After some time, which to us seemed ages, another Land Rover came to our rescue; our prayers were heard. So we packed out of the Land Rover; I thought my knees would give way under me due to fright. They cut out branches and placed them under the tyres and at long last the blessed thing moved. Phew! wasn't I glad?

Some distance off we came across a lot of hyenas and jackals with a flock of vultures wheeling overhead. Further examination produced the carcass of a zebra. (Pity it was not a zebra-crossing place!) Though we felt sorry we didn't let sentimentality get us down. Coming round a corner, the driver jammed on the brakes and backed, for right in front stood the bulk of a rhinoceros. We could make out the forms of three more in the grass. The sight of horns gave me the creeps. (The horn is a compact mass of hair—very strong). We waited for his majesty to move his clumsy form across the road—and mind you, he took his own sweet time!!

Now that we had seen most of the animals we started back. We had to stop several times to let the animals cross the road. I wonder if they were acting as brake inspectors! ! Some did not even glance at us which made me wonder if I was losing my attractiveness! ! Many a time looking up we would see the smiling face of a monkey! ! They thought us fun and jumped on the bonnet and made faces at us—monkey faces ! ! ! The graceful giraffes, the zebras, and the sportive deer and dik-diks added to the beauty of the natural surrounding.

Lake Manyara and the game reserve though so vivid in my mind seem now just a dream —fantastic when I recall them during the day—and a nightmare in the darkness of the night when lone and lost I meet its denizens face to face.

THE COLLEGE STUDENT:

A MISCHIEVOUS MACHINE

LENA MASCARENHAS,
III B.Sc.

Invention:—Le Ma an Indian Physicist invented it in 1969 B.C. But she did not publish it until 1969 A.D. Hence the fame of the invention goes to every person living with full sense.

Where to find it? These machines are spread all over the world and they are of great importance in the world.

Construction:—Construction of these machines requires at least 15 years. There are different stages of construction. The first step of it is done by parent machines at home. The second stage is when it enters the school. Due to the force exerted by the parent machines they are led to school, the first construction chamber. It comes out from this chamber and enters the main factory of construction, namely, the college. Here the machine acquires and cultivates its main property which is its mischievous nature. In this factory it is brought in contact with other machines, where it experiences the forces of attraction and repulsion. Unlike the magnetic and electric forces, these mechanic forces attract like forces and repel unlike forces. In this factory while they try to show their nature, they are kept under the compressing force of bigger lecturing and demonstrating machines. After a course of 4 years in this factory, the well constructed mischievous machines come out.

The principle of working of this machine is very simple. It will never act according to the will of others but acts according to its own nature. Sometimes it starts working just by blowing a breeze of politics.

Nowadays everyone is aware of this mischievous machine and its mischief.

Stepping In.....
Stepping Out

FLAVIA DIAS
III B.A.

So you are going to College? —Well count yourself lucky—you are picked, you are privileged—you are unique and why? There are thousands of your sisters, perhaps more gifted, who are unable to enjoy the wonderful opportunities given to you—

.....Now stop and ponder what are you going for?—only to be one of a long long queue waiting to pay fees at the counter, one of a large crowd that rushes pellmell to every lecture hall—one, just one of the hundreds who sit comfortably in the chair warming it with a head like a windmill that turns in every direction at the slightest breath and a mind that is always in flight faster than the fastest supersonic jet?

Reflect a moment; ask yourself what really do you want from the College and what you are made to give it . . .College. . . it used to be and still can be a magic word—a wonderful world where every window is thrown open that the winds from the worlds of knowledge may blow through them—even to sweep you off your feet and drive you along avenues of thought and experience.

This is College where more than a thousand minds flash upon each other—where they are sparked into light by books, and teachers, by news and views—This is the place where you could learn, and work, where you are taught to educate yourself—for no education can be given to us from without—it has to be an inward process.

This is College where you could develop an all round personality; where you could lend yourself to training for citizenship, leadership, for service and in the final analysis, for life—

Life—! .... now that the years in College are specially coming to a close, I wonder what it will hold for each of us who are now still within these walls .... The College is a little world in itself and has prepared us to step into a larger one. We do not go away unprepared. We have been initiated into the art of living together and we know that whatever life holds, we can meet its challenge, for during these years the College Motto has been etched upon our hearts ....

"God is my Strength"

HERO WITH HAEMOPHILIA

SHREEMANTHINI SHENOY, *B. Sc.*

Fom this example of high courage, sufferers and non-sufferers alike can draw new hope and inspiration.

The Baby's doctor suspected something was wrong soon after the Schnabels' first son, Frank was born, because the child bruised so easily. But nothing decisive happened until Frank was three, when he fell and cut his tongue. It stopped bleeding only after he had received three blood transfusions from his father.

Then the Schanabels learned the dreadful truth: little Frank was the victim of a mysterious blood deficiency, haemophilia, often called the "Royal Disease" because Queen Victoria, though immune herself, had passed it down to at least eleven of her male descendants. In Spain, the childhood of two of them was so cramped by parental fears that the trees in the royal park where they played were padded with pillows.

Thirty years ago, when Frank Schnabel went to the hospital for the first time, only one or two of every ten heamophiliacs lived to be 20. And so in the Schnabel home in Washington it was as if his parents had suddenly glimpsed the sword of death suspended over their child.

One night Mazie Schnabel found her son sleeping peacefully in a spreading pool of blood. A tooth had come loose. In a few hours, she realized with terror, his life would have leaked silently away.

After such a scare, many mothers would have guarded their children every hour. But Mazie Schnabel was a mother in a million. Death might be waiting for her son behind every rough tree-trunk in life's royal park. But something told her that too much protective pillowing could slowly stifle him. Her boy's best chance of living was to accept as much of life as he could take.

So it came about that Frank Schnabel broke all the rules that are supposed to govern haemophiliacs. He went to school, played games, graduated from university, travelled, married, got a good job and kept it. On top of all that, his energy and persistence have been chiefly responsible for the creation of Canada's first adult centre for the treatment of haemophilia.

Haemophilia is not, as most people believe, the penalty for royal inbreeding; it afflicts one out of 10,000 white males. Also, contrary to popular belief, the haemophiliac's greatest peril is not the external bleeding from cuts and wounds, but the more frequent internal haemorrhages. Often, after even the slightest injury and sometimes for no apparent reason at all, the capillaries within the knee or ankle begin to seep blood into the narrow spaces of the joints. As the pressure of the confined fluid on the nerve trunks increases, it soon causes unbearable pain. In their agony, young sufferers pull up their arms and legs which remain frozen in that position unless skilfully treated.

Until recent years most haemophiliacs ended their lives in braces, in wheel chairs, or as bed-ridden bundles of tortured human geometry. The Schnabels, pediatrician knew what was ahead for Frank, and he prepared Mazie to face it and to help her son endure long bouts of excruciating agony—without sedatives, because once Frank began taking them, he would need them

increasingly. And so Frank learned early that even the most unbearable pain could be borne.

Frank Schnabel managed to live with this pain partly because his mother never asked how he felt, or showed how desperately sorry she was for him, or let him think he was different from other boys. He had to be protected—up to a point; yet it was also vital that he should lead a normal life—up to a point. When he was small she rounded off the sharp corners in the house. But cotton wool was alien to her spirit and when he was old enough to ride a tricycle, he was given one. Another boy pushed him off it, and Frank spent several weeks in the hospital.

The repeated transfusions, the days in bed, the nights of pain taught Frank how to mix the right proportions of caution and daring. "I might not climb as high in the trees as my friends,"he told one of his friends "but I'd climb. I'd jump off a fence, but not off a roof". Yet so often he couldn't resist a game of touch football "And half the time I got away with it."

When he was twelve Frank began a diary. As a record of unself-conscious courage, as a story of how a boy took a fearful handicap in his stride, it is unique.

"Played hockey ..... had a fight ....went roller skating ..... chopped down big tree in woods ..... had big battle at snow forts. Both forts were wrecked .... . Did not go to school because tooth was loose and gum was bleeding ..... Think new teacher is nuts. Gum still bleeding. Went to scout meeting and passed Badge and Uniform.

My arm started to get sore. Harry in love with Jean ..... went to camp. The bunks were hard ..... . Did not go to school because of sore foot I got at camp ..... woke up next morning with mouth full of blood. It was my tonsils ..... .

Put about three cords of wood in cellar ..... Made one dollar on that particular day delivering papers and shovelling snow ..... Down with bad leg ..... .

Played tennis and got bloody nose; was hard to stop ..... . Got another nose bleed. Had sore leg from sliding .... went to Hospital and had a transfusion. Wasn't as bad as I thought. Pretty nurses ..... Had squirt-gun fight. Got ankle hurt ..... . Bottled up Allied troops try to escape by Dunkirk ..... . Had another bloody nose ..... . Won about 50 marbles ..... . Let off some fire works. Neighbours complained ..... Mowed lawn and pulled weeds ..... played polo on bike ..... ."

All through those years Mazie watched her son's ordeal with inner agony but outward calm. When one crisis had passed, she would go off alone somewhere and collapse, saving her strength for the next.

As time went by she was heartened by what the unending struggle was doing to her son. "It ripened him" she told him. "He never knew anyone to whom life was so precious because it was so rationed."

In spite of the constant setbacks, Frank won a University degree in Political Science, took the post graduate courses in Geography and Economics at the University of California and went to England for a summer course at Southampton University. "I was possessed by the desire to travel" he says—though he and his mother knew that he might not have proper care. On one trip he spent days in the Library of the Congress in Washington doing research on haemophilia. "It was absorbing" says Frank. "but far too much like reading obituaries."

The blood of a haemophiliac is deficient in a substance —the anti-haemophilic factor or AHF—which is needed to help normal clotting. Because no way has yet been found to make the sufferer's body produce the lacking AHF, haemophilia remains on the dwindling list of incurable diseases. At present the most effective treatment for the haemorrhages into the joints is prompt transfusion of normal blood plasma, a pint of which usually contains enough AHF to stop the bleeding and keep swelling and pain at a minimum.

Haemophilia is hereditary in a sort of hopping pattern. The female line carries it, yet only the male line suffers from it. If a male haemophiliac has children, all his sons will be normal, as well as his sons' sons. But every one of his daughters will be a carrier of the sinister gene, and may therefore transmit the disease to her sons.

When Frank was 24 he went off alone, on crutches to Costa Rica. It was foolhardy, as both he and his mother knew, but she didn't try to stop him. For a year and half, his nameplate was on view in one of the main streets of the capital city, San Jose; Schnabel and Associates, Economic Research, He had hoped to persuade American capital to take advantage of Costa Rica's unique opportunities, but he was too many years ahead of his time. However, he met there the lovely girl who is now his wife.

Not many haemophiliacs marry—its a great deal to ask of a girl. But Hylma Freer had had two years of pre-medical studies. She knew exactly what Frank was up against, what might be the consequences of their having children. They took the plunge with their eyes open.

Six years ago Frank obtained his present position as research analyst for an investment trust in Montreal. One afternoon, Frank's right knee began to hurt. He could almost see it swell. In such an emergency the most potent remedy is speed. By pre-arrangement he telephoned a well-known hospital. "I'm bleeding badly and need a transfusion right away". "I'm sorry, Mr. Schnabel," said a brisk impersonal voice. "You must arrange this through your own doctor. Who is he?" "Dr. X," answered Frank. "Then phone him," said the voice.

Two hours were lost finding Doctor X, getting an ambulance, filling in forms. Frank's wheel chair reached the ward at 9 p.m. but there was no plasma on hand. His own blood was cross-matched at ten, some whole blood arrived at two in the morning. They finally got going with the transfusion at 3.30. By that time his knee was the size of a tea pot.

Was this the best that Canada's largest city, with its excellent hospitals and doctors could do? How might such a disastrous misunderstanding of the needs of the haemophiliac be corrected? Frank sharpened his indignation into a lance, and began a long crusade.

Some years earlier a National Haemophilia Foundation had been set up in the United States. Nothing similar existed in Canada. So for the next three years Frank battled to create a Montreal branch of the Foundation. He rounded up haemophiliacs and the parents of afflicted children, persuaded doctors to give talks to them and finally had enough support to found a Canadian branch.

His next fight was for a single centre for adults. Today, thanks to his energy and persistence, and to the generosity of a Montreal women's voluntary organization, the centre is in full swing.

The Canadian Haemophilia Society, of which Frank Schnabel is president, now has branches in Alberta, Ontario

and Quebec. Every haemophiliac in the society carrries a card with his name, blood type and the warning. "Bearer is a haemophiliac (uncontrollable bleeding) and needs Immediate Medical Attention In case of Accident."

At St. Mary's, haemophiliacs can now get quick treatment at [illegible] portion to their means. A [illegible] but priceless, benefit is the a[illegible] Frank's ceaseless campaign [illegible] on haemophilia.

At McGill University [illegible] to set up a research progra[illegible] mophilia. So far, only on[illegible] certain. Science's attempts [illegible] riddle of haemophilia will [illegible] other haemorrhagic diseases [illegible]

The problem of haem[illegible] troubles medical men. W[illegible] for ways to prevent it, their [illegible] its victims to live as long a[illegible] the doctors are successful, the haemophiliacs will live long enough to marry and have children. And in so doing they will mathematically, inevitably, increase the number of sufferers from this incurable and heritable disease.

[illegible] is the answer? Surely the same [illegible]at Frank and his mother have [illegible]sword of death that hung over [illegible]t the salt of danger, life is [illegible] those who truly love and [illegible] life grants the strength and [illegible] will need to live.

[illegible]d Hylma have an enchant[illegible] of three, Gina Maria. She [illegible]y be a carrier of her father's [illegible] if she, like these two brave [illegible]ose to have her, chooses to [illegible] something infinitely worth [illegible]eating, one of her sons will [illegible] a haemophiliac, like his Frank Schnabel.

COLLEGE YESTERDAYS

When Time has drawn
the curtain
And pinned it with a star
We'll cherish and remem-
ber these College days
Though we may be very
far!

June:

We're all quite fed up with the long summer holidays and are eagerly awaiting the re-opening of College. An added source of attraction is that we'll be the Seniors this year!

16th:

College has re-opened and hordes of smiling II and III years came tripping into College eager to set to work with a will! Being the beginning of the new academic year it is only fitting that we make a few resolutions. So we have a general meeting and Marina Fernandes voices our thoughts and feelings.

23rd:

A hall full of solemn faces—it's a condolence meeting for our late President Dr. Zakir Hussain.

27th:

Seething excitement and an unceasing hum of voices! It's the day of the College elections. Vociferous campaigning going on everywhere! Posters galore! And at 5 p.m., the eagerly awaited results—

President: Olga Norohna
Vice-President:
Norma Saldanha.

A very narrow margin, mind you! And what will it mean for both of us? Hard work!

28th:

Our hopes and dreams of a common room have come true! In fact this Non-Residential Student's Centre or N.R.S. as we call it, goes much beyond our wildest imagination of a common room. Now we have the inauguration and a short prayer ceremony and of course our Principal passes sweets all round. Thanks a lot for the lovely N.R.S., Sister.

July:

College has been rather quiet on the whole. How's that? It's because the P.U.C's and First Years have not yet come in.

3rd:

Here come the P.U.C's!
A very hearty welcome
We extend to you to-day!
We're always here to help you
And guide you on your way.

So say the Seniors! The P.U.C's are

a really talented and interesting assortment! It's going to be fun ragging them a bit!

7th:

Surprise visit by Mr. C. M. Poonacha, Central Minister for Iron and Steel and Heavy Industries. Thank you, Sir, for your kind words of advice.

The First Years too have come in. They are rather subdued and go to work immediately.

10th:

It's Vana Mahotsava—the festival of trees. So, feeling that:

"We're nearer God's heart in a garden
Than anywhere else on the earth..."

all the green thumbs go into the garden to plant green saplings. Let's hope they grow up soon and make our College a more pleasant place to live in!

17th:

A Symposium on Mahatma Gandhi organised by the Politics and History Associations. It is presided over by Mr. Kerala Varma who reveals to us many hidden aspects of Gandhiji's nature.

19th:

The College Cabinet has assembled for it's Swearing-in Ceremony

The members are as follows:

President:	Olga Noronha
Vice-President:	Norma Saldanha
Literary & Debating Society:	Kripalini Shastri
History:	Pratibha Devi
Economics:	Olivia Noronha
Psychology:	Amrith Noronha
Physical Sciences:	Sudha Nayak
Natural Sciences:	Mirabel Pais
Kannada:	Surekha Hegde
Hindi:	M. Vijayalakshmi
Eastern Music:	Ranjini Rao
Western Music:	Weela Sequeira
Fine Arts:	Chinmaya Nayak
Dramatics:	Iris Coelho
Social Service:	Saguna Pai
Planning Forum:	Chrysle Farias.

Being the Gandhi Centenary Year, we pledge ourselves in his spirit of service, sincerity and self-sacrifice. We pray to almighty God to accept our pledge and strengthen us with His grace so that we may do our duty to the very end.

This solemn ceremony is followed by the P.U.C's Introductory Social presided over by Mr. & Mrs. Vishwanath Kamath. Thank you, Sir, for your words of advice. Well done, P.U.C's. Your original and colourful items kept us in splits of laughter throughout the social.

24th:

Miss Dinah Sequeira who has recently returned from the U.S.A. gives us an account of her experiences there. Thanks a lot, Miss, we really enjoyed listening to you. (She went as a delegate for "Experiment in International Living")

25th:

Three cheers for Armstrong, Collins and Aldrin who have landed back on the earth safe, after their spectacular three days' trip to the Moon! All you can hear these days is "Moon-talk!"

Hip hip hurray!
We've got a "moon-holiday!"

26th:

Dark curtains shading all the hall doors and windows, what does it mean? A film? Right! It's "Family Honeymoon"

31st:

We're happy to have with us to-day three interesting guests-Daphne Allen and Andrew Hinderson who have come to Mangalore as delegates for "Experiment in International Living", and Luther Sar-

gent under the "American Field Service Programme." They give us very interesting accounts of life in the U.K. and the U.S.A. It must be fun to live there!

August:

The I and II Years are eagerly looking forward to their Introductory Social. When is it going to be?

2nd:

Instead of the usual Introductory Social for the I and II Years, we're having something new this time—a throw ball match—I Years against II Years! Congrats! I Years! This is followed by a social in the hall. (Wasn't it fun?)

7th & 8th:

Why's everyone scrambling for places in the hall? We're having the Eastern and Western music competitions. Congrats! Ranjini and Sucharita! Also Brenda and Bernie! Hope you'll do as well at the K.M.C. Inter-collegiate competition!

And what about the Groups? Well, it's Bernie and Co.—"The Angel Beats" who get the 1st place. Goodness! Who are those outlandish-looking specimens? You've guessed right! They're the "Psy-cho-Checks" who've got to be satisfied with the 2nd place!

10th:

All the Catholic students go trooping to Chapel for the Inaugural Mass. This is followed by the swearing-in ceremony of the office-bearers and a short programme in the hall. Dr. Veliath, thank you for your fiery words of advice. We'll try to do our best and make the C.S.U. a really effective organisation. President Amrith and Secretary Olivia are already busy with their new duties. This year Sr. Olivia has taken over the charge of the C.S.U. A hearty welcome to you, Sister. To Sr. Noelline we say—We're as sorry to let you go, as we are happy to have Sr. Olivia with us. Thank you very much for all that you'-ve done for the C.S.U. these years!

15th:

Jai Jawan! Jai Kissan! This is the cry that rings out at the little programme that we've got up to celebrate the 22nd Anniversary of our Independence. We have in our midst to-day Mrs. Ananda, an old student and well-wisher of our College.

21st:

It's a film again—a documentary this time. Who says documentaries are not interesting? All of us enjoyed this one!

September:

Why the tense look on all faces? Dark circles under the eyes? Everyone's sitting up late and studying as the Ist Terminal Exams are just a few days ahead.

6th–19th:

All quiet on the St. Agnes' front. Only the scratching of pens to be heard!

20th:

Back to class again and cross your fingers, we'll start getting our papers from to-day onwards!

29th:

At last! The long awaited "Anastasia"! Sorry to disappoint you folk, but its only the film. Do you believe her to be the true Princess or an imposter? The true Princess, of course!

October:

Brings to a close the Gandhi Centenary Year.

2nd:

We have a short prayer service in the hall and all take the Gandhian pledge. May his light ever shine on us and guide us along life's way.

9th:

The last day of the term, but what's all the excitement about? We're having a fancy fete to collect money for the Poor Students' Fund. Delicious eats and an interesting collection of games! And the collection—Rs. 506/-. Not bad! But we could have done better.

10th:

Phew! what a relief! The holidays have begun at last! Here's to a real lazy 3 weeks away from books, and lecturers! Sorry, lectures!

17th:

Why the confusion at the Railway Station? Fond parents and well-wishers have gathered to wish 'Happy journey' to 73 of us, who're entrusted to the charge of Mrs. Leela Upadhyaya, Miss Doll Pais and Miss Moira Mathias. We've all crammed into a special bogey secured for us by "the Travel Lines" and are on our way to Madras, Agra, Fatehpur Sikri, Delhi, Jaipur and Mussourie. "Sayonara" to Mangalore for two weeks! (And weren't they just fabulous!)

30th:

Yet, when we reach Mangalore at 7'0' clock in the morning the enthusiastic welcome makes us feel:

In Delhi and Agra
Though we have roamed,
Be it ever so humble,
There's no place like home!

November:

Looks like the Excursions have not yet come to an end.

2nd:

The III Year Botanists and Zoologists are off on their "specimen collection" trip to Kemmanagundi and Badravathi. Happy journey!

3rd:

It's a Holiday to-day
But ther's a little sorrow,
Because it's the last day of the holidays.
And then—"to College" tomorrow!

4th:

We all troop back to College again. What's the uproar about? Oh, nothing special. It's just that everyone's buzzing with holiday news!

7th:

The III Years seem to be awfully excited about something. What can it be? Our excursion, of course! At 6-30 p.m. 150 of us—the III Year Historians and Psychologists and Mathematicians are swarming into 3 buses. With us are Mother Scholastica, Sr. Aloysius, Sr. Theodomara and Sr. Amabilis. It's going to be great! We're off to Jog, Bangalore and Mysore. (Sr. Marie Xavier, there to wish us good-bye is beaming away. Looks like she's glad to see us off! She's looking forward to some peace!)

13th:

11-30 p.m.—The 3 buses roll silently into the College gates. How is it that everybody is quiet? Are they sleeping? Of course not! We've got no voices left.

14th:

Back to class again and serious study.

16th:

The Planning Forum organises an inter-collegiate Seminar on "The Plan and the Common man" Thanks to Sr. Noelline and to the co-operation from the St. Aloysius College Planning Forum, everything goes off well. Collar up, Chrysle!

17th:

Lilting voices
Uplifted in song!

It's the Eastern Music Competition
We've waited for so long!

This time it is Classical solos and the groups. Congrats again Ranjini and Prathiba too! Weren't the Groups just great! The judges are having a hard time judging the best. The 1st place to Malini Devi and Co. 2nd place to Ranjini Rao and Co.

20th:

Friends, Agnesians, Mangalorians, come and lend your ears to the gifted speakers at the Inter-Collegiate Elocution Competition organised by K. M. C.
Here are the results:

1st place—not ours, sad luck!
Anyway, we've bagged the 2nd place at least. Congrats, Marina!

24th:

There's that tense look again! Now I know why. It's because the Selection Exams are almost on top of us. Come on III Years! Fish out your I and II Year books. It's three years' portion this time. Get down to serious study, now at least, if you haven't already done so.

December:

Just a week left for the exams.

8th–18th:

What a nightmarish ten days! Anyway, like all good things all bad things also come to an end.

19th:

Happy holidays, everyone.

4-00 p.m. Catholic girls get ready for their retreat.

20th-22nd:

It's nice spending 3 days away from the distractions and bustle of everyday life. Thanks to Rev. Fr. Stanny Vas, for us III Years, this retreat has been in the nature of a preparation to face the difficulties that will confront us, courageously, when we leave College and go out into the world: Thank you, Father.

23rd:

Holidays again. How nice–but they're rather busy holidays, aren't they?

January:

As eagerly as we awaited the re-opening of College in June, so do we wholeheartedly dread the re-opening now.

2nd:

Hard luck girls! We've got to get back to College whether we like it or not. So let's stop grumbling and rejoice that 1970 is here at last.

2.00 p.m.: Left to ourselves some of us are inclined to forget that New Year is the time for resolutions and turning over a new leaf. So, we're having a general assembly in the Hall where we voice our New Year motto and have a short prayer service, praying God to kindle in us a new spirit . . . . '

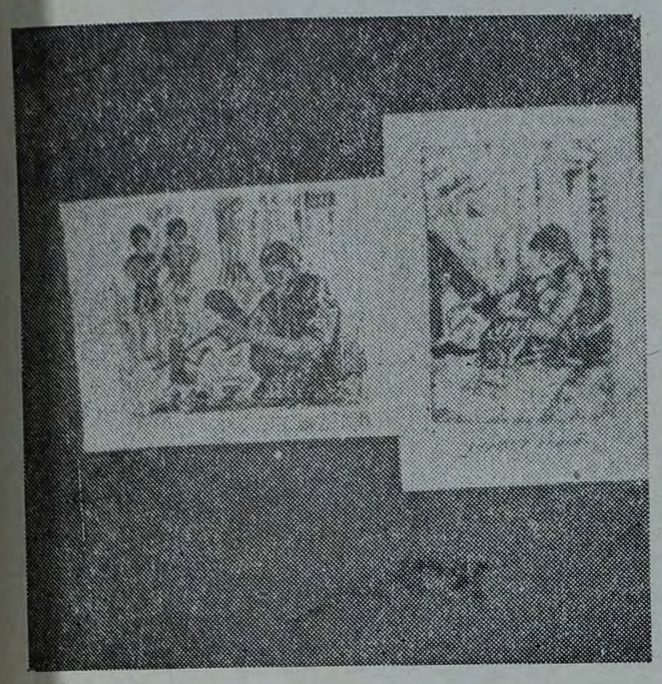
5th:

Mother Braganza, ex-principal of Sophia College, Bombay, comes on a surprise visit to our College. Thanks a lot for your interesting talks, Mother.

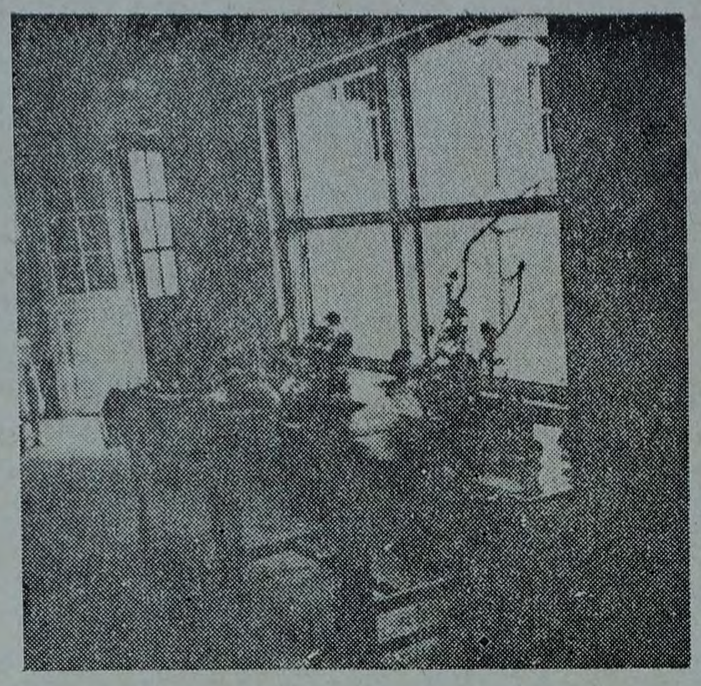
Guess what, girls? It's a holiday! Why? because Jessie Pais has won the first place at the Inter-University Meet at Baroda, in High-jump and has broken the previously existing twelve-year record. Congrats to Jessie! and to Rehna Fernandes too, who won the second place.

8th:

We celebrate Principal's Day:
"We greet you with our wishes
Abundant, heartfelt and true,
For health, wealth and happiness
With a sincere "God bless You!"



DRAWING



FLOWER ARRANGEMENT



PAINTING

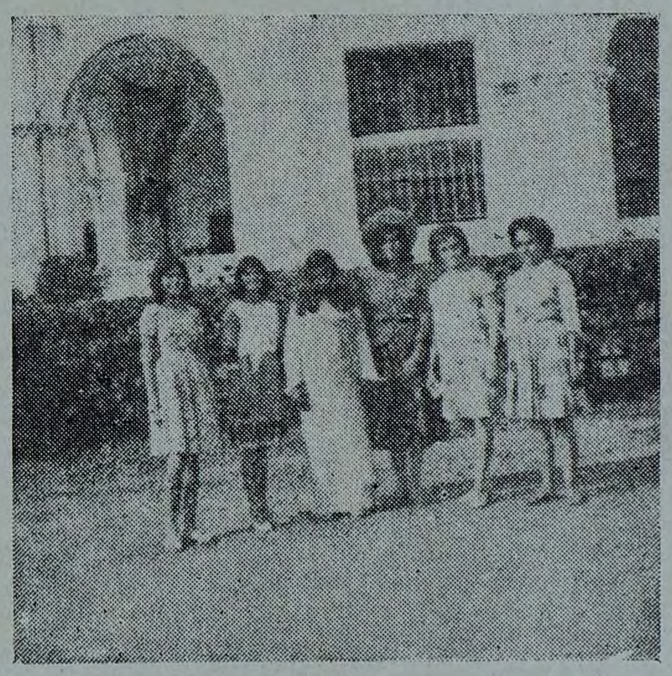
PRINCIPAL'S DAY CONTESTS



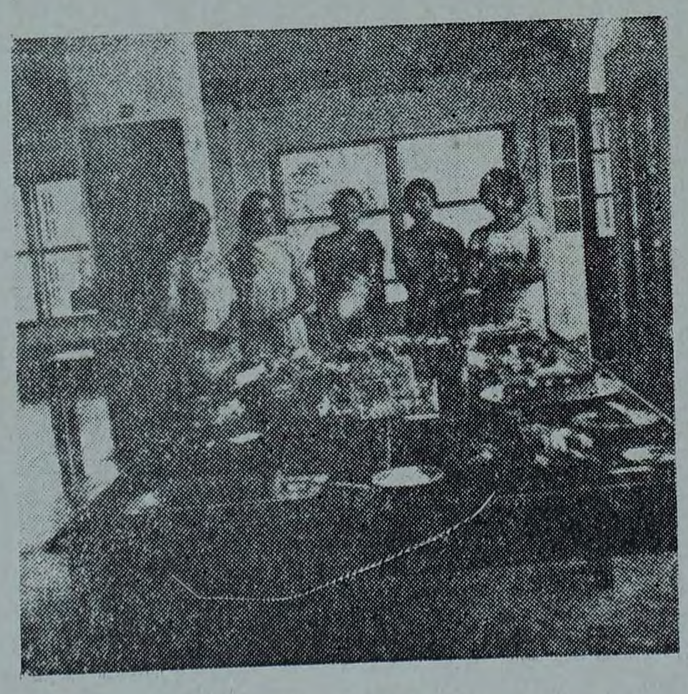
SKITS



MUSIC



SKITS



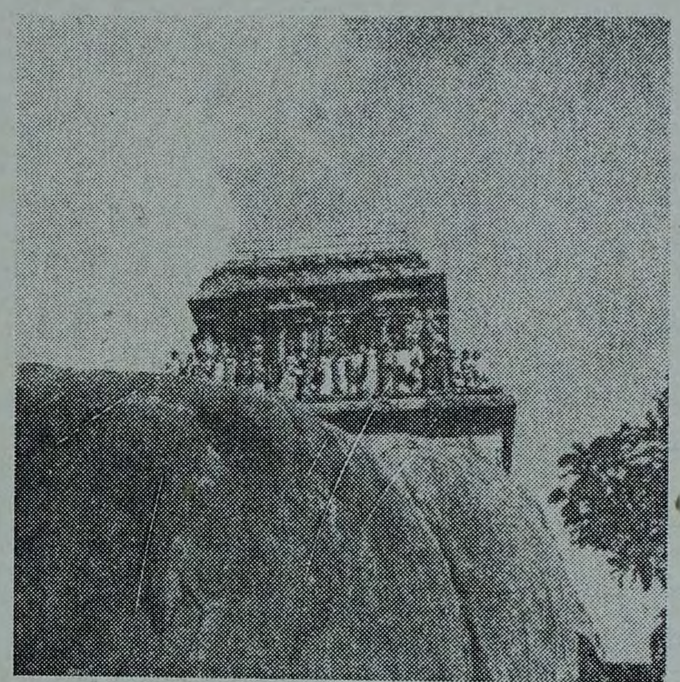
COOKING









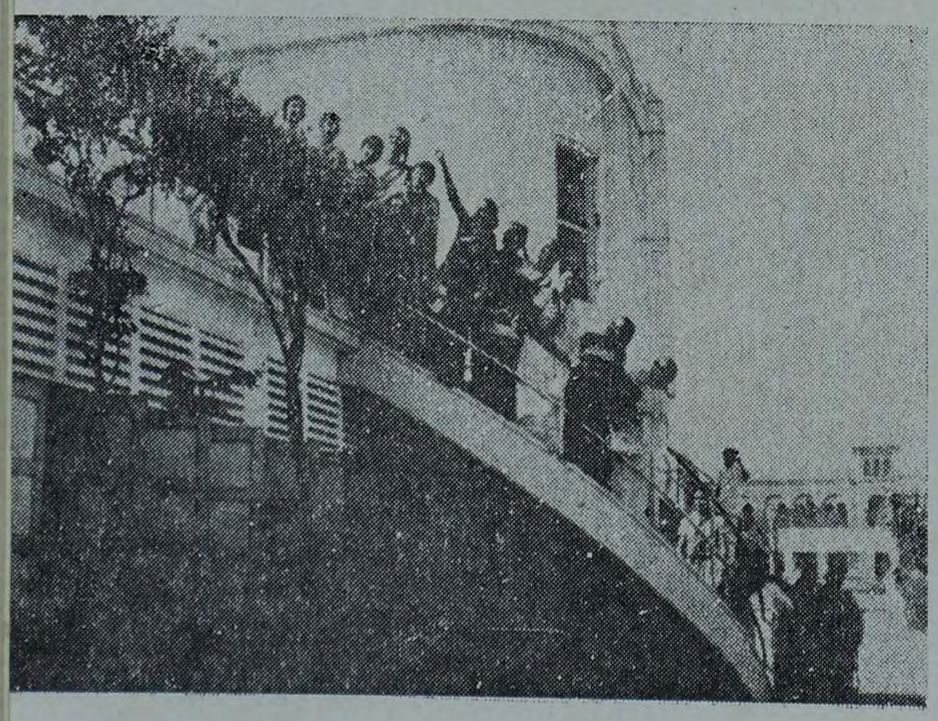




EXCURSIONISTS

AT

MADRAS, DELHI, AGRA, JAIPUR AND MUSSORIE.





9th:

Another holiday, what luck! Looks like it's going to be the last, judging from the faces of the lecturers. After all, "All play and no work makes Jill a dull girl" too, you know.

9th & 10th:

A few of us attend the U.S.I.S. Seminar on "Dissent and Responsibility" held at Moti Mahal. Thanks for giving us this opportunity, Mr. Morley. We've come to the conclusion that the youth in America are not all that different from the youth in India.

13th:

We offer up a Mass for our Principal's intentions. May all her dreams come true!

16th:

We've just realised that it's Mother General's feast day; so we all pile into a few cars and set off to Maryhill.

Dear Rev. Mother,
Though our wishes are simple
They're sincere and true;
And we pray that God's blessings
Shower abundantly on you.

17th:

St. Agnes College is coming into the limelight, isn't it? To-day there was a short paragraph on Jessie Pais's spectacular success together with her photo in many of the leading newspapers. Keep it up, Jessie!

18th:

Our essayists present themselves at K.R.E.C. for the essay competition that is a part of their Cultural Week Celebrations. They are Marina Fernandes and Ena Pinto. Congrats Ena, even if it's only the 3rd place you've won.

Here's the day that we've all looked forward to—it's "Students' Day". Know what that means? The whole day is ours to plan and arrange for. So let's do our best. We begin with Mass at 6-30 followed by the flag hoisting and march past. What a lovely sight to see the whole College turn out onto the Plains! Then follows the Sports Meet that is on a competition basis between the various classes. Who do you think are the winners? The III Years of course! And the individual Championship goes to Jacintha Fernandes—III B.A.

In the evening we have a number of other competitions beginning with the Flower Arrangement Competition. Gosh! what a lovely sight the 25 entries make! So much so that the judges can't decide which is the best. After much consideration they judge as follows:

I Place–Frances Noronha II B.A.
II Place–Ashwini Rao I B.Sc.
III Place–Shobha Rao P.U.C. Arts.

The next item is a Hair-Style Competition. My! my! What an array of buns and beehives and dinner-rolls!! Here again, it's really difficult to decide which is the best. Want to know who won? Well, here are the names:

I Prize–Zabetta Britto, P.U.C. Arts.
II Prize–May Saldanha, III B.A.
III Prize–Joan Paes, II B.A.

The last item is the Music Competition. You should have heard our nightingales sing!

For the Western Music Solo Brenda Tellis and Beryl Machado share the Ist place and the IInd Prize goes to Bernie Fernandes. In the duets Olive and Beryl Machado are the winners.

In the Eastern Music Competition the first prize goes to B. Sucharita, III B.Sc. The IInd Prize is shared by Malini Devi and Sudha Nayak U, and the IIIrd prize is shared by Pushpalatha Suvarna and Neena Kumari.

Congrats to all of you!!

21st:

To-day is the feast of St. Agnes, so we III Years offer up a Mass for our dear College. This is followed by break-fast in the College hall. We thoroughly enjoy ourselves dancing and singing. It's a wonder the cups and saucers are not smashed to smithereens!

23rd & 24th:

Our musicians take part in the K.R. E.C. music competition. We didn't do very well, but then we can't expect to do so every time.

That brings January to an end. It has been a rather busy month, hasn't it?

February:

It's hard to believe that this is our last month in College. Are we happy or sad? Time will tell!

1st, 2nd & 3rd:

The Dean of Student Welfare for the University of Mysore, Shri U.K. Subbarayachar, calls up a meeting of the Mysore University Students' Council consisting of a representative of every college in the State. Being the representative of my College, I have to go for it. The purpose of the meeting is to discuss how far students can participate in University Administration. It really is a memorable meeting and we hope the University will do everything in its power to further the student cause.

6th:

Why on earth have all the III Years decked up in sarees today?. Gosh, I almost forget–to-day we'll have our class snap taken.

7th:

To-day is another of the days that we look forward to from the beginning of the year because today is the day set aside for our class picnic. So, early in the morning we III years pile into buses and head for Panambur. Needless to say, we enjoy ourselves to our hearts' content and return home tired and awfully tanned.

8th:

To-day brings with it the first of the Valedictory functions. To-day it is the turn of the Yuvak Seva Sadan.

12th:

Anyone who visits St. Agnes' to-day will see hordes of girls busy putting up decorations and streamers and a number of other people running around doing odd jobs. What's all this in aid of? To-morrow is our College Day and it requires a lot of preparation as the Governor of Mysore, Shri Dharma Vira is to preside and distribute the prizes.

13th:

To-day's programme is io extend from 5-45 to 6-30 p.m. Let's hope everything goes off well.

Sure enough, punctually at 5-45 p.m. the Governor rolls in with his motorcade. He takes the salute from our N.C.C. Cadets and then mounts the dais. It's wonderful to receive our prizes from him. A memorable day indeed! And to add to it all, everything goes off so well that his Excellency congratulates us on our excellent behaviour. Haven't we developed horns? Of course we have! His message to us students will always remain with us and guide our way in difficult times.

16th:

Everyone is in a ferment of excitement because the College elections have been scheduled for 20th. There is canvassing galore and plenty of colourful posters put up! In the midst of it all, we have a short programme to wish Mother Scholastica for her feast.

'Precious Lord, take her hand .....'

So we sing and pray, and offer our floral tributes. Sorry for the hasty wishes, Mother. Everyone is too excited to think clearly.

19th:

The new C.S.U. President & Vice-President Veronica Gonsalves and Phyllis Farias bring up a C.S.U. Valedictory function. It is presided over by Miss Tressie Aranha. Thanks a lot, all of you, for the valuable messages put across to us. We'll always keep them in mind.

This evening, Government College has its annual Music Competition. And of course all our musicians take part. Best of luck to all of you. What about the results? Yeah boy! St. Agnes' and St. Aloysius' share the I place. As we can't share the shield we've decided to keep it for 6 months and they'll keep it for the other 6 months.

20th:

Election day—subdued and intense excitement.

President: Anuragini Row

Vice-President: Phyllis Farias.

Congrats both of you! Norma and I wish you all the best for next year. Though we have enjoyed being the President and Vice-President, it's a relief to hand over our responsibilities to you both.

21st:

Is it possible that today is our last day in College? It's hardly credible. In the evening we have our "Send-Off" given to us by the II Years. It is with heavy hearts that we wish goodbye to well-loved faces and surroundings. There will be regrets when we think of what was and what might be; but let us not reflect on the dead past and the unborn to-morrow because in the sweetness of to-day the pain which parting brings will linger. Judging from the sad and tearful faces we all agree with Victor Hugo that "Parting is dying a little". Truly, "To meet, to love and then to part is the saddest tale of the human heart".

Theories of Colour Vision

AMRITH NORONHA,
III B.A.

When Newton passed light through a prism and broke it up into a spectrum, the stimulus for colour became known. Now began the research on the laws of colour mixture. Coloured lights could be mixed in definite measurable quantities, directly on the eye, and the individual colours could be specified physically in terms of wave lengths of light. Based on this type of 'additive mixture', three laws of colour mixture are usually stated.

The first law is based on the fact that the 'primary colours' of additive mixture, namely red, green and blue can be manipulated so as to reproduce all the other colours of the spectrum.

The second law mantains that when certain colours are mixed with certain others they produce a neutral grey. These hues capable of cancelling each other are known as complementary colours. Examples of such are blue and yellow, green and red.

The third law is that when certain colours are mixed with certain other colours of a definite wave length, a third colour is produced which is the resultant of the two colours acting as blends. Blends never cancel out to give grey. The three laws can be demonstrated experimentally.

Now let's get on to the theories of colour vision. There are scores of them proposed and refuted from times as early as 1807! All these theories are based on the common foundation—the duplicity theory of vision. It says that there are two types of visual receptors—the rods and the cones, the rods being responsible for achromatic or colourless vision and the cones being responsible for chromatic or colour vision. The cones are most thickly concentrated in the fonea (the central part of the retina) and decrease in number as the outer end is approached, and finally at the periphery there is only a cencentration of rods and a resulting colourless sensation when stimulated. The entire retina is believed to have an accumulation of 7 million cones and rods which number 'one hundred million'!

Before examining the most popular of the colour theories it must be clearly understood that no single theory accounts for all the phenomena of colour vision.

The fact that the three 'primary colours' can be fused to produce all the coloures in nature led Thomas Young, as early as in 1807, to assume that there are 3 kinds of 'fibres' in the retina, each responsible for a specific hue—one for red, one for green and one for blue. These fibres, tho' sensitive to all the colours of the spectrum, are maximally sensitive to their respective hue. The relative strength by which these fibres are stimulated is the factor that accounts for colour sensation. Young's idea was tackled 50 years later when the doctrine of 'Specific Energies of Nerves' was enunciated by Muller. Helmholtz elaborated this theory of Young,

treating the three fibres as three species of cones. The theory was now entitled the Young-Helmholtz theory. The theory, briefly saying, lays down the following—1) Each sensory machanism is presumed to have a given sensitivity curve which presents $\frac{7}{J}i$, sensitivity or response at each spectral wavelength for each of the three mechanisms. (2) The total response in each mechanism is $Ji = \int^{7} jiE\,d$ 3) Colour is the function of the relative values of the three responses J_1 J_2, & J_3. 4) Brightness is a function of the three responses.

The theories that follow are those dealing with quantitative theorising of colour vision. None of them presents a final statement of the quantitative relations of colour vision.

Helmholtz presented his treatment of the subject a little before 1894. His treatment of the mathematics of a brightness colour-space has had a lasting effect. He tried to answer the question whether hue can be discriminated on the basis of gradations in the intensity of three fundamental processes *R*,*G* and *B* that are evoked whenever the cones are stimulated by light.

Let *dS* be the magnitude of a "step in sensation", while *dSR*, *dSG*, and *dSB* are the "steps" attributable to the respective fundamentals. *dS* can only vanish if *dSR*, *dSG* and *dSB* all vanish; hence when $dS=0$, it is necessary that $dSR=dSG=dSB=0$. In addition, *dS* cannot be negative.

Now, what about intensity of colours? If we change the total luminance of a colour by a certain percentage, then the intensities of the component processes, *R*, *G* and *B* are changed by the same percentage, and have the same value. He then says that the difference between two similar adjacent colours may be varied by changing the intensities of *R*, *G* and *B* which exist in amounts *X*, *Y*, *Z* and $X+dx$, $Y+dy$, $Z+dZ$ respectively.

Coming on to Hecht's theory, it supposes that there are three kinds of cones present in the retina, and that in the fonea they exist in approximately equal numbers. The sensations which result from the action of these three cones are qualitatively specific and may be tentatively described as blue, green and red respectively. Thus, a given cone, which contains a photosensitive substance, whose spectral absorption is greater in the blue, or in the green or red, is joined to a nerve fibre which is so connected to the brain that, when light stimulates the photosensitive substance in the cone, an impulse is carried on and the respective colour will be registered in the brain. Regardless of the method used for starting the impulse, and regardless of the wavelength of the stimulating light, an impulse proceeding along a "blue" nerve will register blue in the brain, a "green" nerve green and "red" nerve red.

The essential element of the theory consists in the three curves, labled R_o, G_o, and V_o. The curves may be thought of theoretically as the luminosity curves of three species of cones. The curves could effectively predict several sets of colour vision data; and on the other hand, they had to fulfil certain conditions. First, certain of the curves should cross at wavelengths that correspond to the neutral points of colour blind individuals. Second, the ordinate values on the curves should add at any wavelength to give the appropriate luminosity value, and finally it was felt that it would be desirable to have equal areas under the curves; and they should provide a basis for describing the experimentally determined relations of colour vision.

Hering's theory is based on the existence of four primary colours; namely blue

corresponding to about 470 mu; primary green about 500 mu; primary yellow about 570 mu and primary red. Hering's theory depends on the mutually antagonistic properties exhibited by the primary pairs, red and green, yellow and blue, and white and black. The properties of each pair depended upon antagonistic subprocesses white-black achromatic process, the red-green process and the yellow-blue process. The white subprocess opposed the black; the red opposed the green; and the yellow, the blue. The white, red and yellow subprocesses were considered to be dissimilative "breakdown" processes, whereas, the black, green and blue subprocesses were thought of as assimilative "build-up" processes. Each single subprocess could produce its associated primary colour, red, green, yellow or blue. Intermediate hues, however, depend upon the interaction between processes of assimilative and dissimilative components. Violet, for example, depends on a combination of dissimilative red with assimilative blue.

The complementation in after-images is simply explained as due to the automatic tendency for the colour substance to regain its metabolic balance. If the red-green is continually stimulated catabolically, we see red; but if the stimulus is removed, anabolism automatically sets in, and we see green.

After-images is explained as a recovery process too. Suppose the eye is stimulated by a blue of 470 mu. It will be seen from the sensation curves, that the stimulus at this point also stimulates red and green in equal amounts, but less than for blue. The blue cones become more fatigued than the red and green cones. When the stimulus is removed, the red and green cones recover faster than blue, so we see their mixture or yellow. Colour blindness too fits in readily with Hering's theory. Most so-called "colour-blind individuals tend to see the world as blue and yellow, which could be explained as an improvement of the red-green cone, whereas Helmholtz theory doesn't in that sense answer how a red-green colour-blind person can see so much yellow.

Christine Ladd-Franklin, formulated a theory which was based on the facts of colour zones and colour blindness. She was a contemporary of Helmholtz and probably studied with Hering also. Her main complaint against Helmholtz theory was that it was not based on the four psychologically primary colours and she pointed that Hering did not recognise that red and green are non-complementary and their mixture produces yellow. She worked out a conceptual theory which ironed out these discrepancies. Her theory is termed "The Evolutionary Theory" of vision as she used hypothesis regarding primitive vision. She assumes that a single photochemical substance is present in rods as well as in cones. The rods, she says, are the primitive undifferentiated receptors which respond to all light by giving a sensation of grey. Primitive vision is present in the outermost zone of the retina as only rods are present there. Later, as the evolutionary ladder is ascended, the cones of the intermediate zone came about to form two types of receptors; one of which reacts to the short waves of the spectrum; and the other to the long waves giving rise to the sensations of blue and yellow respectively. Finally, in the innermost zone, the yellow component further got broken up into a red sensitive and a green-sensitive component.

The theory seems to be acceptable since it gives a very coherent explanation for facts of colour blindness.

1. "If red-green receptors were the latest to evolve this would account for

the commonest of colour blindness. i.e., red-green colour blindness; since the most recent acquisitions would presumably be most frequently affected.

2. The smaller area of the red-green colour zones as compared with blue and yellow would also be explained by the more recent acquisition of the red and green receptors.

3. It takes into account that red and green give a yellow instead of white, whereas blue and yellow give white when mixed. The answer is in terms of evolution as sketched above.

In conclusion, it can be said that Ladd-Franklin's theory, though the most logical, has produced least research, because it is physiologically difficult. There is not sufficient evidence to show that molecules (rods and cones) split off into other molecules.

Hering's theory too seems quite speculative. The modern physiology of nerve conduction does not point out to the presence of two kinds of processes in the same neurone. When a neurone is activated, the all-or-none law operates. Neurones with two types of discharge are not detected as yet. How the light stimulus can blind up a receptor molecule is unanswered. Recovery usually takes place in the absence of stimulation.

Compared to the above two theories, that of Helmhotz seems to be more acceptable since his facts of physiology come nearest to modern conceptions of nervous and sensory functions. All said and done, if ever the duplicity theory of vision comes to be questioned, all these theories will be absolute fiction.

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THE PHENOMENON OF COLOUR BLINDNESS

OLGA NORONHA, *III B.A.*

The fact that there are great individual differences in the ability to discriminate colours was apparently unsuspected until nearly the 17th century. And it was not until the celebrated chemist John Dalton described his own defective colour vision in 1798 that the fact was widely accepted. Today however, colour blindness as a phenomenon is commonly recognized, largely because of the publicity given by the requirements of the armed forces.

For a long time after Dalton's disclosure, it proved difficult to devise an adequate test for colour discrimination. One early test required the subject to send samples of coloured knitting wool, but this was not very effective and did not enable a quantitative approach to the problem. In 1881, the testing of colour discrimination was put on a scientific basis by Lord Rayleigh. It was known that a mixture of red and green gave yellow, but Rayleigh showed that the particular mixture of a specific red and green that a person made to match a standard yellow could be used as a test for colour discrimination. It still remains one of the three basic methods of research and testing. In using this Rayleigh equation, the subject is asked to make the match a number of times. In analysing the results, two things are considered–what is the average amount of red and green used, and how much do the amounts of red and green vary from match to match.

A second basic method of investigation is to measure the amount of energy needed to match each wavelength in the spectrum to a standard brightness. This gives what is called the luminosity wave. The underlying idea behind this is that if sensitivity to a given wavelength is deficient more than the usual amount of energy of that wavelength is needed to make the match.

The third technique is to determine just noticeable differences (JND's) between two colours. Starting with two identical colours, we find the smallest change in the wavelength of one that results in its being perceived as different from the other.

Using these three techniques, the particular type of defect a person has can be discovered, e.g. whether he is a dichromat or a deuteranope etc., and also the degree of his defects e.g. whether it is partial, or total etc. The findings can be summarised as follows:

Many people have lower than normal ability to distinguish hues. Those who can see various hues but merely have certain difficulties in distinguishing them are said to have a colour weakness. Those who fail to see any hues are said to be totally colour-blind. Colour blindness is almost exclusively a male disfunction, following approximately a sex-linked form of inheritance. To be more specific, the eyes of about every one in twelve males is so affected.

In total colour blindness, which apparently is pure red vision, all wavelengths and all mixtures differ only in brightness, and there are no differences of hue. In order to match all parts of the spectrum, only one component is necesssary and this one may have any wavelength within O's invisible spectrum.

However, totally colourblind individuals are very rare. The few studied by psychologists have shown that the spectrum for them, is equivalent to a series of greys. The colourblindness that we hear about most frequently is red-green colourblindness, betrayed by a confusion of green with brown and of pink with pale blue. The rest of the population varies from those with extremely poor colour vision to those with extremely good colour vision.

Several kinds of colour blindness exist. The commonest by far, as mentioned before, are the red-green forms, of which there are two: a) deuteranopia, the more frequently occurring and b) protonopia, the less common. Both are "red-green blind" in the sense that red and green are confused with each other and both colours are confused with yellow. Indeed it would not be too much to say that red, yellow and green, all look alike in the sense that all three spectral colours, in these cases, resemble each other in hue. Another way of stating the subjective appearance of colours to the red-green blind is to say that the spectrum has been reduced essentially to a two-colour continum—yellow in the long waves and blue in the short. For the reason that the spectrum has become simplified to a two-colour arrangement in red-green blindness, people having this anomaly are spoken of as dichromatic, possessors of two-colour vision.

The best way to make a distinction between the two main forms of dichromatism i.e., protonopia and deuteranopia, is to ask how the spectrum appears to them. By reference to the spectrum, we can specify the details of their colour vision in terms of wavelengths and light energies. Protonopes and deuteranopes, although both dichromatic and having only yellow-blue spectrum left, tend to quarrel with each other about some colour matches. Why? Because there are important quantitative differences between them. The deuteranope, scanning the spectrum from the long wavelength to the short, sees yellow when the normal sees red. Red and orange appear yellow, as to yellow itself, yellow-green and green. In short, everything down to the region of 500 millimicrons (blue-green) looks yellow. Here for a distance the deuteranope experiences a colourless grey band in the spectrum. Beyong this region the spectrum appears blue. The protonope sees the spectrum in very much the same way, except that the extreme reds (the longest visible wavelengths) arouse no colour perception for him; the long-wave end of the spectrum is colourless. Then, up to the point at which blue-green exists for the normal, everything is yellow. Beyond this, toward the short waves, the protonope sees blue. If one likes to think of it this way, the grey band of the deuteranope (in the blue-green) is displaced in protonopia to the extreme red end of the spectrum.

How does one know what the red-green blind see? After all, colour-blind people use colour names very much as people with normal colour vision do. The particular dingy yellow they see on looking at grass is called by them "green" (since that is clearly the colour of grass) and the poorly saturated yellow they get on looking at bricks is "red," (since that

is well-known to be the colour of bricks). There are two ways to find out: (*a*) the systematic examination of colour matches made by the colour blind and (*b*) taking advantage of the rare instances in which one eye only is colour blind. In the latter case, which provides a clincher in ascertaining the facts, the normal eye can correct the judgements made by the colour-blind one.

Much has been made of the difficulties encountered by the red-green blind. It is pointed out that the red-green confusion leads to inability to distinguish red strawberries or cherries from green ones, failure to tell whether a traffic signal is red or green and no end of difficulty in selecting neckties and socks to harmonise with suits. Actually, these matters are not so serious as they would seem to be at first glance. One can live to a ripe old age without even having to pick either strawberries or cherries for a living, the traffic light problem has been solved by making the "go" light a blue-green, and dichromats soon learn that they will do well to rely on someone else's judgement in haberdashery or to identify articles of clothing by pattern rather than colour. There are few occupations in the world in connection with which keen hue discrimination is an important requirement.

Another kind of dichromation, in addition to the two varieties already described—protonopia and deuteranopia is tritanopia, a form having quite different symptoms. Here the spectrum is also reduced to two colours but they are red and green. The tritanope confuses blue and yellow, seeing them both as white or grey. Blue yellow colour blindness seems always to be based on pathology. There is a disease of the retina or of the optic nerve tract or both, and there is likely to be a number of accessory complications. Therefore, it is difficult to make generalities about tritanopia; each case presents an individual picture.

Finally, there is another form of colour blindness in which all colours are confused with each other and with white; the world is thus reduced to a black-gray-white continuum. Such is the predicament in total colour blindness. Two forms are known to occur—in one of them, the congenital variety, the evidence points to a failure of the cone mechanism to develop; all vision is mediated solely by the rods. A person having this difficulty must avoid all but the lowest illuminations. Normal daylight is dazzling and his zone of seeing is limited to twilight conditions. Since he lacks cones, there is a central scotoma which he must avoid in order to see clearly. As a consequence, the congenitally totally colourblind individuals make frequent jerky eye movements of the type known as miner's mystagmus. To cut out potantially blinding light, he is likely also to go about with half-closed lids. Naturally, with the cones not functioning, there is a radical reduction in visual acuity which cannot be remedied with spectacles or other aids.

An acquired form of colour blindness also occurs. In this, there is none of the accessory difficulties of the congenital form. Acuity is normal, moderately bright lights are not blinding and there is no mystagmus. It appears that the only inconvenience is the failure to distinguish hues. Not only is it true, as for the normal, that "at night all cats are gray" but for the totally colour blind they are gray in daylight as well.

Many people with defective colour-vision do not recognise their defect. The reason that they are not aware of the deficiency is that they have learned to give colour names to familiar objects in terms

of the most characteristic brightness of these. Thus, red, to one type of red-green defective, is equivalent in stimulating value to dark gray. He calls either the red object or the dark representation of it red. This is because, when earlier stimulated by the "red" object, he has heard it called red. Likewise, a person with green colour blindness will often call a brown sweater of certain brightness value green. It looks no different to him from the way a green sweater of the same brightness value looks.

At present the best tests for colour-deficient individuals are the pseudo-isochromatic charts such as those devised by Ishahara. When brightness is held constant, the basic cue on which the colour defective relies is removed and he can no longer make his usual discriminations. This is the basis of tests for colour defects. Test charts have been prepared that consist essentially of numerals on patterns printed in various shades of one colour on a background of various shades of a second colour that defectives are known to confuse with the first one. Since the brightness of the colour varies randomly, the defective cannot discern the pattern. Usually another pattern is printed in the same colour as the background but at a constant brightness. Normal observers disregard this—in fact often do not notice it at all—but colour defectives see it as the dominant feature on the chart.

Colour vision defects are usually inherited. They are believed to be carried by sex-linked recessives. This means that a man with a colour defect who marries a normal woman will have normal children but his daughters will be carriers of the genes for the defect. Their sons have a 50–50 chance of being colour defective. If, however, the man marries a woman who is a carrier, all his children have a 50–50 chance of being colour defective. When a colour blind woman marries a normal man, their sons are all colour blind, but their daughters are only carriers. Since colour defects appear to be genetically determined, they cannot be cured by glasses, diet, practice or any other presently known means.

OLGA NORONHA,
III B. A.

A CRIPPLE'S WISH

Up above the tree-tops
Way up in the sky,
I see the birds a-flying,
As in my bed I lie.

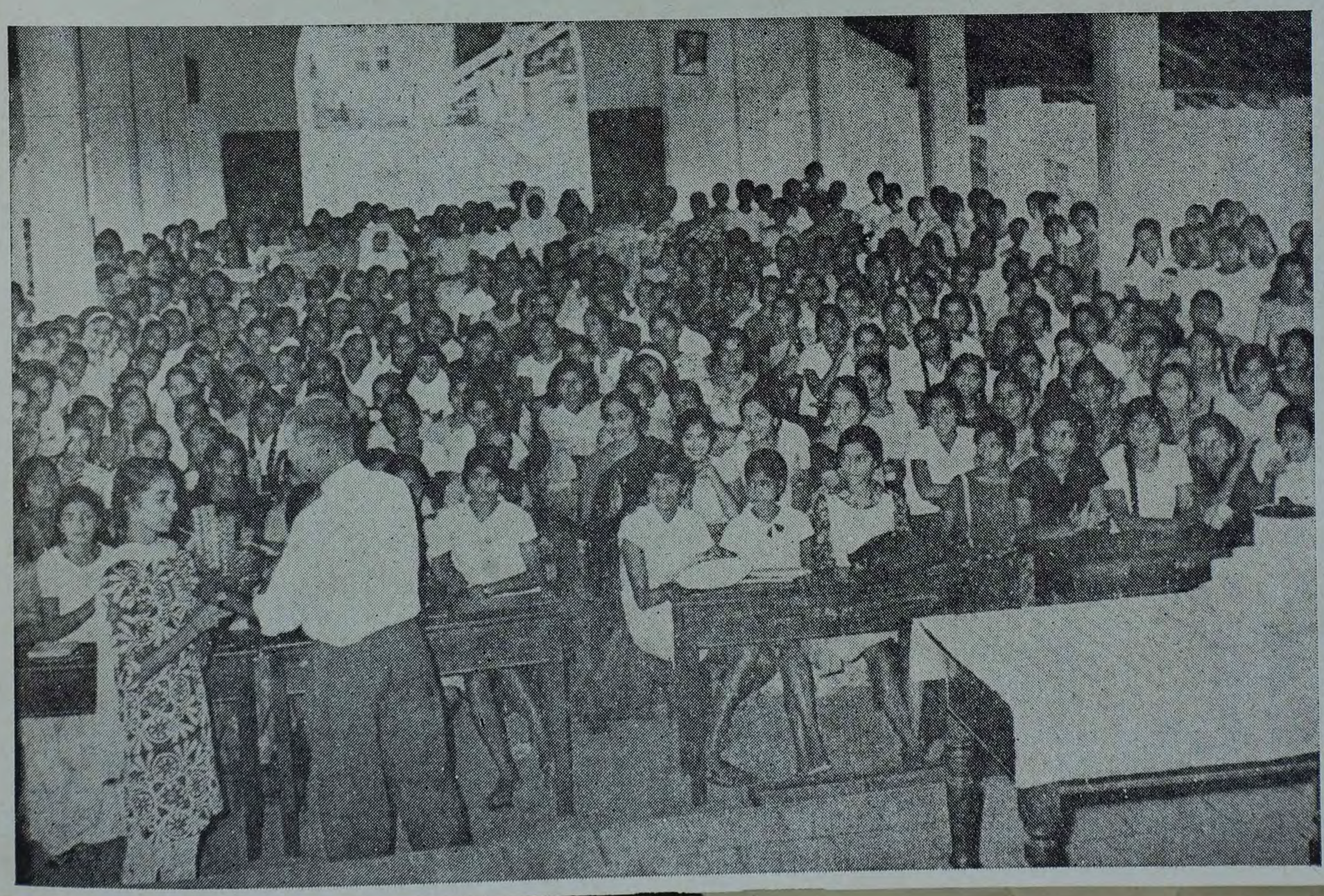
Out in grassy meadows
I see the children play,
Oh! that I could be with them
Running about all day!

Strolling through lush green fields
Or paddling in the stream,
That's where my heart yearns to be!
But—that 's only a dream!

"What a fate is mine!" I cry out,
But a gentle voice whispers near
"Don't wallow in self-pity, think of your luck—
At least you can see, speak and hear!"

"BROOKE-BOND" COMPETITION – Be the Perfect Hostess







FINAL YEAR B. Sc., BOTANY – ZOOLOGY MAJOR

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"TEENS" AND HUMOUR

By the time we step into college we should, if we are normal beings, have acquired a sense of humour; if not, we are in a dangerous position, for by the time we step out of the "teens" into the "twenties," we have more or less "settled" down with set personalities and some one with little or no sense of humour is going to find life rather frustrating and tiresome.

When then, or how can we acquire this 'valuable' sense of humour? I have always thought that we are born with it. However, I realise that environment, particularly family life, plays a tremendous role in shaping our dispositions. But associating with other youngsters since the age of six, we are at sixteen an amalgam containing all the elements of vice, humour, madness, friendliness and goodness that makes us "ourselves". Therefore when we talk of a sense of humour (a good one that is), we really mean the degree rather than the presence or absence of it.

Having a good sense of humour does not mean being able to laugh at the folly of others or at a common joke but the value of possessing such a quality as to be able to laugh at ourselves alongside with others. Laughing at others becomes humourless when the persons you are laughing at do not appreciate being the butt of your jokes. By laughing I do not mean scorning others which is a malicious taunt on anyone's part. When you are able to laugh and be laughed at for your slips then automatically all ill feeling would evaporate even before they arise.

Now a good sense of humour is most useful, particularly during our college years. Coming from different schools, it is difficult to adjust ourselves suddenly to a new atmosphere and to new teachers. The first few weeks are the loneliest and most awakward but an imagination combined with an itch for fun, enables one to picture ridiculous events for self-entertainment. Life is dull indeed, day after day with such a time-table as English. Politics, Psychology, French, and General Science and it is only when we let ourselves 'go' now and then that we are prevented from turning into dust. Dull must a person's life be if she takes college as just a place for study day in and day out. However, it is equally important to have teachers possessing a good sense of humour. A good sense of humour together with tact acts as a passport everywhere

and thus if goodwill prevails between teachers and pupils there will be better co-operation all round and I think life will be more interesting.

A sense of humour makes work seem more enjoyable and laughter too. It is vitally essential if we want to appreciate Literature to its full. A sense of humour keeps us from being extreme at times. It willl help to understand people better. However, I do not mean that a person with a sense of humour is an angel who is smiling all the while; everyone has her odd moments of bad temper streaking out as well as times when one feels terribly irritable and thus becomes irritating to others. But a keen sense of humour is a real asset in helping one to overcome fits of 'passion' and 'emotional disturbances'.

The danger of having too fixed an idea of a sense of humour may provoke ill feelings—this can be seen when we interpret situations differently as, after all, opinions are always subjective and even if we mean to be funny, the reverse effect is felt by others. Often we would feel pretty mad with each other just because we fail to understand each other.

A good sense of humour helps us enjoy life as college-girls to the full. We do not want to be adults yet and neither do we desire to be treated as kids and therefore we roam in a world of giddy irresponsibility. Here we have one last fling before becoming "proper young ladies". Lack of a sense of humour can develop an inferiority complex in us. A person who is devoid of a sense of proportion (which is what humour is essentially) yields to a high esteem of herself and of her principles. She tends to misunderstand others and to judge them by her standards. She would feel out of place and would find life miserable. In this way she might develop an inferiority complex in the end when she discovers that she is left alone. A fine sense of humour assists us in clear thinking—then we are reasonable enough to take the world as it is, and not be upset when we discover that a Utopia is not possible. We should be able to make the best of what comes and what better way than a cheerful acceptance of it?

If we have a good sense of humour, we automatically have an understanding personality; and then we learn to get along with people totally different from ourselves in taste, thought or in manner. Moreover, in one's late teens, one should develop all that is good in her—her special gifts and talents. Goodwill is essential to everybody and in what better way, can people be bound together but by the ties of friendship? When thinking of friendships, we associate the factors of mirth, cheerfulness and generosity of spirit which further this fine sense of humour. After all, "smile and the world will smile at you; weep and you weep alone!"

Traditional Indian education emphasises toleration in order to have harmony and to have harmony we must possess purity of mind, strong character, right principles and a sense of humour to complete these requirements.

A sense of humour should be with us all through our life and not be adopted or practised only in College. It is something that develops as our mind develops, and without it life will be really barren, stark and empty. Sometimes humour has to be sought, wooed and won; this might be seen in our pursuit of good jokes and cartoon quips.

But we should value the possession of a good sense of humour for its own sake, its effervescence and its infinite kindness.

EMPLOYMENT AND THE COMMON MAN

MAGDALENE PINTO, *II B.A.*

'Poverty, the most deadly and prevalent of all diseases,'—to quote O'Neill—is a direct consequence of enemployment. The end of many things, Planning, Congress, even democracy may come from the growing tide of the unemployment which has rapped not only the economy but also human dignity. The beginning and the end of five year plans are vital dates in the nation's history. Each five year plan is both an assessment of the past and a call for the future. It seeks to translate into practical action the aspirations and ideals of the millions in the country and gives to each of us the opportunity of service in the common cause of eliminating poverty and raising standards of living. The primary object of the plans was to lay the foundations on which a more progressive and diversified economy could be built up. Rapid industrialization is the core of development. The question of increasing employment opportunities cannot be viewed separately from the programmes of investment envisaged in the plans. Employment is implicit in and follows investment and it is of course a major consideration determining the pattern of investment.

The employment situation as revealed by employment exchange statistics began to show an uneasy trend by the time the past five year plan was half way through. In spite of the inclusion of some labour intensive schemes the employment position worsened to some extent during the period of the plan, the number on the live register of employment exchanges rising from 3.37 lakhs in March 1951 to 6.92 lakhs in December 1955. This is not to say the First Plan did not have any impact on development. In fact, during the plan period there had been progressive expansion in the volume and range of employment, both in urban and rural areas. The major impact of the first plan, however, had been in the latter areas, where agricultural development and large scale construction activity, in addition to providing full-time employment, had relieved to some extent the prevailing underemployment.

The task faced during the second five year plan in the field of creation of employment was threefold. Firstly, urban and rural areas. Secondly there was the increase in the labour force which was estimated at about two million persons per year, and lastly, the underemployed in rural occupations and those engaged in household occupations in urban areas had to be provided with increased work opportunities. The total outlay in the public sector was estimated to be of the order of Rs. 4,800 crores, of which Rs. 3,800 crores represented investment. In addition, invest-

ment in the private sector was expected to be of the order of Rs. 2,300 crores. It was possible to work out the additional employment likely to be generated by the plan, on the basis of employment data supplied by the States and the Central Ministries and on the basis of physical targets proposed for the private sector with certain assumptions regarding productivity increases.

Apart from the general problem of unemployment and its regional characteristics there was the specific problem of educated unemployed which required special consideration. To assess the magnitude of the problem and to suggest suitable remedies the Planning Commission appointed a Study Group. According to its estimates which were based on the analysis of employment data available in the country, the volume of unemployment was in the neighbourhood of 5.5 lakhs. The question of the educated unemployment cannot be viewed in purely quantitative terms in the manner the problem of general unemployment is often thought of. The regional and occupational aspects associated with the problem have to be considered separately. Regional immobility among the educated except at fairly high levels comes in the way of the fuller utilization of such personnel. As a result, in the course of the Second Plan the additional employment opportunities created amounted to about 8 million of which about 6.5 million was outside agriculture. The backlog of unemployment at the end of II Plan was reckoned at 9 million. This estimate was admittedly rough. It took account of the estimate of unemployment as at the beginning of the Second Plan (6.8 million), the larger increase in labour force during the Second plan period than had been visualized earlier (1.7 million), and the estimated shortfall in the employment targets originally proposed for the Second Plan (about 2 million). In addition, underemployment in the sense of those who had some work but were willing to take up some other work, could not be precisely estimated but was believed to be of the order of 15–18 million.

Employment which had always been a major objective of planning in India, assumed a special urgency in the Third Plan. However, in view of the numbers involved, provision of adequate employment opportunities was among the most difficult tasks to be accomplished. There were inherent difficulties in estimating the employment potential of the vast range of projects and programmes which formed part of a plan of development stretching over a period of five years. In each sector of the plan two major assumptions were made. The first was that through appropriate economic and other policies, production and employment would not be allowed to fall below the existing levels. Secondly the various development programmes for which the plan provided would be undertaken with the necessary efficiency and economy, and continuity of output would be assured. Following certain methods of estimation it was reckoned that the Third Plan would provide additional non-agricultural employment of the order of 10.5 million and additional employment in agriculture of about 3.5 million.

The proposal to undertake a comprehensive programme of rural works during the Third Plan was significant not merely for creating the additional employment opportunities which were required but even more as an important means for harnessing the large manpower resources available in rural areas for the rapid economic development of the country. Works programmes envisaged for rural

areas comprised five categories of works, among them schemes to enable village communities to build up remunerative assets and development works towards which local people contributed labour, while some measure of assistance was given by the government. Further, as in the immediate future the rural works programme would make a large demand for persons with education it was proposed that as a preparatory step, numbers of educated persons should be selected and put through short periods of training for specific jobs of work.

A major objective of the Fourth Plan is to create more employment opportunities in the rural and urban sectors on an unceasing scale. In the rural areas this will be through labour intensive schemes such as minor irrigation, soil conservation, ayacut and special area development, and private house building. Extension of irrigation and multiple cropping should result in a considerable increase in the demand for agricultural labour in many areas. The development programmes included in the different sectors will generate substantial employment opportunities during the Fourth Plan period. The extent to which new employment opportunities will be created, or the improvement in the earnings of those already employed in the different sectors cannot however be precisely quantified. The increasing tempo of agricultural development is likely to create new employment opportunities in rural areas. Increase in the agricultural ouput through extension of the area under cultivation, more intensive and improved agricultural practices, the use of improved agricultural farm machinery, the diversification of crop pattern and multiple cropping would expand the demand for labour. Non-farm employment is expected to grow at a fast rate. The acccelerated growth of organized mining and manufacturing, the encouragement of ancillary and small scale industries, continued assistance to village and household industries, the rising level of construction activity, the increased provision for building the infra-structure of communications will all contribute to larger opportunities for direct employment including self-employment. Substantial additional employment opportunities will also arise in the tertiary sections of trade, commerce and financial activities. The principle means of enlarging employment opportunities is to get the economy move as fast as possible with the maximum dispersal of productive activity throughout the country.

The most notable lesson gained after going through the various reports of committees and study groups on employment, after what the successive five-year plans have had to say, is that the current tempo of economic activity is insufficient to provide productive employment to all, in particular to the small tiller and the artisan. If we want to bring about major improvements in the economy, urgent and effective steps have to be taken on a war footing with the primary aim of generating mass employment combined with rapid economic growth. A labour intensive technology is called for to absorb the entire man-power surplus through all the channels of development. To begin with, there should be a net-work of country-wide multi-purpose pilot projects for absorbing sulplus manpower. The necessary agency in the country side has already been created through the community development network set up through 6,500 community blocks. The failure of some of them is due to to the fact that people considered them as government agencies and not as people's programmes operated for those who are most affected, namely, the unemployed.

Only the richer and more influential sections of the village community availed themselves of the major benefits of development in these blocks. Our projects should be manned by a dedicated task force of picked men and women who will be the instruments of a rapid socio-economic change. The directive principles of State Policy in India's Constitution proclaims the right of the citizen to an adequate means of livelihood. Unless a concrete programme of action for mobilizing the masses in productive channels and generating the employment potential is launched, this right will remain on paper and we shall nowhere reach the goal of a socialistic pattern of Society.

Nowhere else in the world have we so many millions of people to be attended to and planned for in a democratic set up. Naturally any proposal for deciding the fate of these millions will inevitably be circumscribed by the limits of our experience but nothing prevents us from launching a bold imaginative and constructive programme, based on our capacity to think in the best interests of the people. The immediate problem is rural poverty which is inextricably tied up with the problem of raising the efficiency of the agricultural sector. If only we enlarge the small farmer's interest in progressive agriculture through co-operative multi-purpose farms, a major task would have been accomplished. While the prospect of an additional mouth to feed may be alarming, the additional two hands that are offered for work should not be kept idle. Let us not be unduly nervous about the growth of labour resources which can be converted into an asset through an enlightened labour policy. Let our motto be:

"Every house a cottage industry,
Every area of land a pasture,"

Let us begin even with rocky land and convert it into a fertile farm.

The Green Years Begin....?

D. SULATHA, *II B. A.*

Indian agriculture did not witness any major breakthrough in farm technology during the first fifteen years of planning. But the recent breakthrough in the year 1967–68 has opened a fresh chapter in India's agricultural productivity. For the last three to four years India witnessed a tremendous upsurge in agriculture.

The different facts of this technological leap forward in agriculture has been popularly called the Green Revolution. Disentangling itself from the traditional agronomic practices, Indian agriculture is now increasingly adopting the most modern and scientific techniques for stepping up productivity.

The reasons for adoption of a new strategy for agriculture are not far to seek. The failure to increase significantly foodgrain production during the III Plan period (1961–66) and the consequent sharp increase in food prices resulted in the development and enunciation of a new agricultural strategy in 1965.

The salient features of the agricultural strategy are:—

1. The use of high yielding varieties of seeds.
2. Adequate supply of seeds, fertilizers and irrigation water.
3. Adequate credit facilities.
4. Remunerative prices.
5. Co-ordination of all programmes in agriculture.
6. More recently we have added the MCP or Multiple Cropping Programmes.

In short, a 'Package Strategy' was adopted in areas with sufficient water supply.

Among the factors in the Package Strategy the use of improved and High Yielding Varieties of seeds has been the most prominent in bringing about the agricultural revolution. The introduction of the HYV has opened a new horizon in agricultural production and initiated many technological and operational changes in Indian agriculture.

The use of high yielding varieties of seeds was introduced as a pilot project in seven Intensive Agricultural Development Project (IADP) districts in 1960–61. Because of the initial success, the programme was extended to other areas as well. By 1968–69 the coverage of HYV was nearly 17 million acres. It is proposed to bring the entire irrigated area under this programme during the IV plan. According to statistics, the use of high yielding varieties increased by more than 40% in the IADP districts or in areas well covered by irrigation.

The use of HYV seeds has been widely extensive in the case of wheat production. The Mexican Dwarf varieties such as Lermarojo and Sonara –64 have yielded such marvellous results in Punjab that the demand for the seeds from the

enthusiastic farmers has far exceeded the supply. Improved seeds have made an appearance in the cultivation of maize, bajra and jowar, but so far it has only been on an experimental basis. In the field of rice, seeds such as IR –8 and Taichung Native–1 and Tainan 3 have been used in many areas but the progress has been halting. The HYVP has succeeded mainly because of the research conducted by the ICAR and in the Punjab by the Agricultural Univerisity at Ludhiana.

There has been great enthusiasm among farmers in the use of improved seeds because of their high yields. Some farmers have harvested more than 10,000 pounds of rice on an acre using IR –8. Mexican wheat strains have yielded as much as 2,800 pounds per acre. Hybrid bajra gives 3 times the yield of the ordinary bajra. Such profitable gains have also accrued in other fields of agriculture.

The important advantage of these improved seeds is the shortening of the duration of the crop. It is due to the early maturity of the seeds that the farmers are able to harvest three crops instead of the one that they used to harvest. This green triangle has helped the farmer to increase production and the new strategy in agriculture has surely started paying off.

The use of fertilizers plays a major role in this agricultural revolution. The use of fertilizers is imperative to the use of HYV. In the past five years the amount of fertilizers used by the Indian farmers has increased from 60,000 tons to 1.5 million tons. Between 1914 and 1969 the consumption of nitrogenous fertilizers increased by 291%, that of phosphatic fertilizers by 339% and potassic fertilizers by 642%. Besides the 10 fertilizer units working in the country at present, the Government is importing fertilizers on a large scale to meet the growing demand. For the development and utilisation of local resources of organic manure, three schemes are in operation as state plan schemes, namely the rural compost scheme, green manuring and urban compost and sullage utilisation.

Assured and adequate availability of water is very important in maintaining the tempo of the green revolution. This is more so because less than one-fifth of the cultivated area enjoys the benefits of controlled irrigation. The drought in 1965–67 which created famine conditions in many parts of the country, made the government switch its emphasis from the major irrigation works to minor irrigation projects. In fact, an additional potential of nearly 10 million acres was created between 1966 and 1969. By the end of the IV Plan, it is proposed to bring another 20 million acres under irrigational facilities. New methods of dry farming have to be evolved if areas dependent on rain are to increase their production.

The increased use of pesticides is another factor which has sustained increased productivity. According to the estimates conducted, nearly 10–20% of India's food production was destroyed by pests and rodents. Between 1961–1967 the area treated with pesticides has risen from 16 millions to 124 million acres. By 1971 it is planned to increase the area to over 200 million acres. Nearly 70% of the pesticides being used are produced in India itself and the residue is being imported from other countries.

Among the other factors responsible for the Green Revolution should be mentioned the use of modern machinery such as tractors, harvesters and pump sets; price incentives in the form of support prices; adequate credit facilities and also the processing, storage and marketing facilities.

Sir M. S. Swaminathan, commenting

on the Green Revolution observed that slowly but surely the yellow colour of the seedlings of various crops started turning green due to the increased development of chlorophyll, as a result of better nutrition and this change in colour is probably referred to as the Green Revolution.

Even though the Green Revolution has been heralded by many as spectacular there are still grave doubts whether all this progress can be called a revolution. There is now sufficient experience with the New Agricultural Strategy to ask how green is the "Green Revolution" and is it indeed a "Revolution" or merely a small "Palace Revolt", as some have chosen to describe it.

In fact, compared with the output of 1964–65 which was nearly 90 million tons, the output in 67–68 does not seem to be picturesque at all. Asoka Mitra observes, "At this stage we can hardly afford to slide into romanticism. The agricultural revolution is still a perspective event. The harvest of 1967–68 implies only a process of recovery from the harrowing two years following 1964–65 and nothing more than that." Perhaps the fears expressed by Asoka Mitra are slightly exaggerated. For, there is no doubt that there has been a technological breakthrough in agriculture. But what is more pertinent, is to ask whether India will be able to sustain this revolution because not only are there a few shortcomings but there are the additional problems created by the new Agricultural strategy.

First of all, it is but natural to emphasize the fact that the Green Revolution has marked a greater advance in the area of cereals and particularly in wheat. It is now clear that the recent spurt in foodgrain production has been mainly the result of a sharp jump in wheat production. In fact, wheat is the only cereal where the new agricultural strategy has had a visible impact on total production. The same cannot yet be said for rice and coarse grains. Whereas the new varieties of wheat are being produced in areas where there are adequate facilities for irrigation and are protected from diseases and pests, the same favourable conditions are not yet given for other crops. If the Revolution is to be an all pervading one in the first place there is the need not only to extend the HYV Programmes to wheat and rice fields everywhere, but also to other agricultural commodities like sugarcane and cotton. Steps in this direction are fortunately being taken in the IV Plan.

Secondly, there is an acute shortage of fertilizers and pesticides. Inspite of the fact that they are being imported on a large scale, the supply available is insufficient to meet the growing demand. The programmes of HYV will not yield much benefit without the use of fertilizers and pesticides. It is now evident that the rice produced with the improved seeds is being destroyed by pests and rodents, thus wiping out all the benefits of the HYVP. There is, therefore, an acute need to step up their production within the country.

Thirdly, the Package Strategy has been applied hitherto in areas well provided with irrigational facilities and hence its success. But there are vast tracts of land without irrigational facilities and where the Green Revolution has not made a mark. The package strategy can no longer afford to be a Package. The need to raise productivity in dry farming areas which constitute the larger part of agricultural land is still a talking point. It should not be long, therefore, before the momentum generated by the Green Revolution begins to bump against the limits of available irrigation.

It is rather unfortunate also to note that the gains from the Green Revolution have accrued more to the rich landlord than to the tenant farmer who is the backbone of the nation. In the race for technological improvement, the substantial farmers are making better gains and the gap between the big and the small is widening. This is the dark shadow of the Green Revolution.

Another problem is that credit facilities are not within the reach of the farmer to enable him to introduce new techniques. An adequate credit system, backed by the nationalized banks should be created to save the farmer from the clutches of the money lender. The existence of support prices and procurement prices have helped the farmer. There is, however, a need for minimising the risk of crop failure by crop insurance, flood control and pest control schemes.

Closely connected with the problem of finance is the problem of unemployment in the rural areas. Due to the high profits in agriculture, the richer landlords have started purchasing more lands. Lured by the attractive prices offered by the richer farmer the smaller farmers have been selling their lands to the former. This situation has been aggravating the already existing problem of the landless labourers, and has been defeating all attempts at bridging the gap between the rich and the poor. Hence the Green Revolution and its benefits seem to be at cross roads with the objectives of establishing a socialistic pattern of society at present. The root of all these problems is the lack of adequate credit facilities. Conscious of this deficiency, the Rural Credit Review Committee had made many valuable recommendations. If accordingly, there is the re-organization of co-operatives, and agricultural credit is given a new lease of life by the commercial banks perhaps the problem in this direction could be solved..

Again studies have conclusively proved that the land reforms have not altogether been of any use to the Green Revolution. Land reforms have hardly had any impact on production. As a matter of fact the Green Revolution has fared much better in areas like the Punjab, Tamil Nadu and Andhra Pradesh which are not particularly known for their marked progress in land reform legislation. On the other hand, in Maharashtra and Gujarat where the land reforms have registered much progress, the increase in agricultural productivity has been rather modest. The per annum compound rate of growth in the production of all cereals between 1952–53 and 1966–67 was 4.16 in Punjab 3.56 in Tamil Nadu whereas it is only 1.28 in Mahrashtra and 1.33 in Gujarat. Thus, it appears that there seems to be a negative correlation between agricultural productivity and land reforms. And as such, radical reforms like ceilings on holdings may affect the Green Revolution adversely. Perhaps, the solution to this fresh problem can be found in successfully implementing co-operative farming.

The new technology also leads to an increased demand for labour because of the number of agricultural operations needed. This has naturally led to a demand for higher wages and also to a certain deterioration in the relations between the landlord and agricultural labourers.

The Green Revolution has turned out to be an eye opener to the Government so far as price policy is concerned. The Government cannot afford to remain complacent any more as regards the price policy. Arriving at a reasonable price seems to be the most essential problem connected with the Green Revolution. Quick and prompt action is called for not

only to ensure a reasonable price to the consumer but also to offer a remunerative price to the farmer. The Green Revolution because of the rise in production has already had its impact on the prices of agricultural commodities in many areas. In the absence of a subsidy from the Government it is doubtful if the farmer will be enthusiastic enough to continue the progress if the prices are not remunerative. This calls for a price policy which will be in the interests of both the farmer and the consumer. Further, in the past there has been a tendency on the part of the farmers to divert the land from one product to another depending on the prices. There has been a tendency to shift the lands to the produce where prices are high. Due to the scarcity of cash crops for the last few years much land has been diverted from food production to the cultivation of these products. Such tendencies generate abnormal conditions of a glut and scarcity in the markets which will in turn have adverse effects on prices and production. If the Green Revolution is to progress smoothly some attention has to be paid to curb such tendencies.

What is essential to sustain the Green Revolution now under way is the co-ordinated efforts of our scientists working in the various disciplines to anticipate problems and be ready with remedies. Any complacency at this stage might have social and economic repercussions making the promising Green Revolution short lived.

The Governor

RUBBER-STAMP OR RULER?

M. VIJAYALAKSHMI, *II B. A.*

Dr. Pattabhi Sitaramayya once expressed the view that the duties of a Governor lay more in welcoming visitors and giving them tea than anything else. He no longer governs but is the watch dog of the constitution. So far this was the case when a Governor, like the President, was looked upon merely as a constitutional head. This statement no longer holds good in the current state of affairs. We no longer blindly believe this convention which has been borrowed from the British Constitution.

The Governor is an essential part of the constitutional machinery, fulfilling a necessary purpose and rendering an important service. In 1959, Dr. Rajendra Prasad came to a definite conclusion that no provision in the constitution specifies that the Governor is bound by the advice of the council of ministers. According to Mr. Nehru the Governor is a factor in bringing various groups and parties together and is important from the point of view of the people. He cannot over-rule the ministry but his advice is always available. As the President at the centre, the Governor in the state, by convention, is a mere figure-head or rubber stamp. Little thought has been given ere now, to his role in the kind of contingency that has been arising with greater frequency in recent years. We are forced now to envisage a more dynamic role for the Governor.

The constitution of India vests numerous powers in the Governor which accrue to him as the head of the state. The excutive power rests with him and extends to all matters on which the state legislature has the power to make laws. He appoints the Chief Minister and other members of the council of Ministers who hold office during his pleasure. All executive actions of the government are performed in his name. He appoints the Advocate-General and other officers of the state.

The Governor is empowered to grant pardons to all persons convicted of any offence against any law. He has considerable power in the legislative field also. He convenes the state legislature, addresses it in person or sends messages to it and he can prorogue or dissolve it. He causes the annual budget to be laid before the House. Every bill that is passed by the state legislature has to be presented to the Governor for his assent.

The Governor has also the special legislative power of promulgating ordinances during the recess of the state legislature, if he is satisfied that there exist circumstances which make it necessary for him to take immediate action. (The way in which this power has been exercised in recent incidents has caused the Governor to come under fire from several quarters.) All these powers add

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FINAL YEAR B. Sc., MATHEMATICS – PHYSICS – CHEMISTRY MAJOR

FINAL YEAR B.A., POLITICS-PSYCHOLOGY, ECONOMICS PSYCHOLOGY MAJOR



to the honour and prestige of the Governor and render his role a very constructive one.

But we seem to have adopted a convention peculiar to the British constitution that theory is one thing but practice is totally different. Though the Governor has been vested with formidable powers he exercises most of them through the Council of Ministers. Like the King of England, he reigns but does not rule.

The Governor administers the oath of office to each minister. He allocates among the ministers the business of the government. All decisions are taken by the council and these are communicated to the Governor by the Chief Minister. The Governor can call upon the Chief Minister to furnish him with information connected with any administrative or legislative matter of the state. Briefly the Governor is supposed to be little more than the constitutional head of the state. Although the constitution assigns to him the role of the chief executive the real executive in the state is his Council of Ministers.

Article 162 of the constitution, however, confers a singular power on the Governor—that of acting in his discretion. It is an anomaly which empowers a Governor to act when constitutional crises occur in the state. According to this constitutional provision, the Governor has the exceptional power to over-ride the advice of the council of ministers. In such cases, the Governor is no longer a titular head, he is the actual ruler of the state. Still, there are limits to the extent to which he can exercise his power, Absolute discretion is an element of autocracy. The Governor can, under no circumstances, be an autocrat as long as he functions within the framework of a democratic constitution. He could use his power for the welfare of the citizens or be tempted to employ it to achieve selfish ends. The latter would lead to political complication. This is where control steps in. The Governor is not a free agent in the exercise of his discretionary powers during abnormal times. If he misuses them to further his personal ambitions or as a partisan in the cross-currents of state politics, the heavy hand of the President comes down on his shoulder.

The ultimate check on the powers of the Governor is the President. The latter appoints him and can dismiss him as soon as he falls into disfavour. It is difficult, therefore, to think of a Governor under a fully responsible system of Government established on the broadest possible basis, be having in an authoritarian manner. During normal times his powers are normal. But it is when constitutional crises occur that he comes into his own as the head of the state. He is an agent of the President all right, but being the 'man on the spot' familiar with all the angles, he becomes the virtual ruler of the state.

An epidemic of constitutional breakdown seems to have broken out in our country and is spreading rapidly. Haryana, the Punjab, U.P., West Bengal, Madhya Pradesh and Rajastahan have had a bout of it. The Governors were called upon in each case to deal with the situation. Some dealt ably with the situation.s Others got too much involved and had to be quarantined. Dharma Vira, at present Governor of Mysore had to be recalled from West Bengal. There were many who held, however, that the decisions he made were bold and wise in the circumstances.

It is not sufficient if the Govenor acts constitutionally. He must exercise his power according to the needs of the situation. Many criticised the Governor of Haryana for dissolving the Assembly because a few defections could lead to instability and insecurity. His advice to the President to declare an emergency was quite in keeping with the situation.

Governors have been criticized for acting

as puppets in the hands of the Central Government. It has been remarked that immediately a crisis occurs in a state, the Governor flies to Delhi presumably to be instructed by the Centre on the course of action he should adopt. Recent criticism has been aimed at Mr. B. Gopala Reddi and Mr. Nityanand Kanungo, Governors of U. P. and Bihar respectively. It was felt that they deliberately delayed a decision till the situation crystallized in favour of the Ruling Congress. It would be well for Governors to exercise their discretion in such a manner as not to give the impression that they are being manipulated by the ruling party at the Centre.

There has been, and still is, a strong plea for the abolition of the post of the Governor. It is argued that the doings of certain Governors have brought down the dignity of the high post. True it is, that a few of our Governors have acted in a manner to provoke such opinions. But then many of them have conducted themselves with fairness and wisdom. One does not ban newspapers because there are mistakes found in them now and then.

There is much to be said for the retention of the Governor. In this position, he maintains the dignity, stability and responsibility of the State Government. He is the acting agent of the President—the link that fastens the federal state chain, the channel which regulates the Union-State relationship. He is above all parties and groups—impersonal authority of the State and Union, therefore approachable by all. His role is most significant where there is an impending breakdown of the normal working of the constitution.

In an emergency, quick and relaiable service is expected from a Governor. He takes over the reins of administration and drives it as he desires. As a result, as M. V. Pylee remarks: "he can do a great deal of good if he is a good Governor, and he can do a great deal of mischief if he is a bad Governor".

Scope and Use of Mathematics

KANTHI KUMARI, B. *I B. Sc.*

It is sometimes argued that everybody is not going to be an engineer, a mechanic or anybody to whom the facts or methods of mathematics are necessary for his vocation or future work. True, everybody is not going to be an engineer, a doctor or a member of any other profession. Whatever he may become, mathematics is essential for him. Mathematics is purely a man-made science. It is the creation of man. It was originally invented and devised as an instrument for the purpose of investigating, understanding and formulating the properties of natural phenomenon.

Counte says: "It is in mathematics we ought to learn the general method always followed by the human mind in its positive researches". White W. F. says: "The social sciences mathematically developed are to be the controlling factors in civilisation". Lord Kelvin says: "All great scientific discoveries are but the rewards of patient, painstaking sifting of numerical data". The great leader Napoleon says: "The progress and the improvement of mathematics are linked to the prosperity of the state".

Roger Bacon has the high opinion that mathematics is the gate and key of the sciences .... Neglect of mathematics works injury to all knowledge, since one who is ignorant of it cannot know the other sciences or the things of the world. And, what is worse, men who are thus ignorant are unable to perceive their own ignorance and so do not seek a remedy.

All scientific education which does not commence with mathematics is defective at its foundation. A natural science is a science only in so far as it is mathematical and it is the indispensable instrument of all physical research. It is almost impossible to follow the later developments of physical or general chemistry without a working knowledge of higher mathematics. It is in mathematics that we find the primitive source of rationality and to mathematics must the biologists resort for means to carry on their researches.

For a long time, mathematics was taught because of its disciplinary value, for the training it gave or it was supposed to give to the mind. In the 'Pial' schools of India, arithemetic was taught because of its use in the calculation of prices and in keeping accounts. The pupils were made to memorise the whole of 'Enchuvadi' that is multiplication table for whole numbers up to twenty times twenty. This helped them to calculate orally the interest on a sum. But in the 'Patasalas' mathematics served as a tool for the study of astrology and building of temples. Students spent their time in solving mathematical puzzles and the effect of this we see even today in most of our text books and examinations. Let us see the part played by mathematics in various fields.

Mathematics and Physical Sciences

If we examine closely, it would be seen that mathematics has played a greater

part in the building up of our modern civilization than any other subject of study. It is mathematics that made the use of the physical and chemical properties of matter possible for the benefit of man. For instance, we know, when water is boiled steam is formed. This steam exerts pressure on the surface of the vessel in which it is contained. But while using this steam in the construction of the steam engine, to know how much pressure is necessary for a steam engine so that it does not burst, needs the help of mathematics. If Nature is to be harnessed, then we must study the quantitative side i.e. weighing and measuring and establishment of a relation that can be expressed in mathematical forms. Certain authors defined mathematics, therefore, as the science of indirect measurement. From the above examples, we can recognise the scope of the use of formulae and equations we study in the classes.

Mathematics and Engineering

Whether it is the simple way of surveying and levelling done in a village or a case of designing and constructing, nothing can be done without bringing in mathematics. The use of mathematics is so well-known in engineering that it is unnecessary to dilate upon it.

Mathematics and Navigation

Enormous amount of world-wide ocean-carrying trade would be impossible if there were no safe navigation. It is the development of mathematical astronomy that made navigation comparatively safe. Some years ago, a great disaster at sea was attributed to the want of sufficient mathematical knowledge. Mathematical knowledge is indispensable. Nothing but waste of time, waste of energy, waste of life, waste of everything would result if mathematical aid is not called for.

Mathematics as an Interpreter of Physical Phenomena

It is mathematics that gives shape, form and definiteness to the properties of matter. The great concept of conservation of energy would not have been possible but for the fact, the kinetic and potential energies of bodies were made measurable by the labours of mathematicians. Mathematics not only provides the means but helps man to decide what he should measure and calculate.

Mathematics as a Tester of Hypotheses

Although mathematics plays a secondary part in the development of science, it plays a very important part in classifying facts and bringing them under general laws which are capable of being used for predicting future events. One of the functions of mathematics is to list and determine whether the results that are presented by the other sciences are consistent with the other known facts and whether the conclusions are valid. Anything that breaks under the mathematical hammer is unmercifully pronounced to be false.

Mathematics Helps and Directs Researches

Mathematics not only lists results, but very often directs researches. For example, in classifying the atomic weights of the several elements, chemists found that the elements arranged themselves in accordance with what is called the "Periodic Law". But gaps were found in some places. On the assumption that nature is mathematical, Mandeleef boldly prophesied that there must be some unknown elements which were undiscovered in nature.

In conclusion, we can say that the scope and use of mathematics is wide, The all-pervading nature of the useful-

ness of mathematics is not due to any magical property of the facts or methods of mathematics. Its use is all-pervading because it was devised by man for that very purpose. What I say regarding mathematics is, that no other subject of the school curriculum as at present organised can compete with mathematics so far as utility is concerned. Therefore, from the vocational point of view, if the curriculum is to be decided by the principle of "the greatest use to the great number," mathematics should occupy the first place in the school curriculum.

The Planning Forum 1969-70

CHRYSLE FARIAS, *Secretary.*

The Planning Forum started functioning as soon as College reopened. As the Forum has always considered a study of the Plans as an important task before it, the members participated in a series of seminars throughout the year. Some of the topics treated were: Social Control of Banks; Bank Nationalization; The Draft outline of the Fourth Plan; Agricultural Programmes in the Fourth Plan; Industry in the Fourth Plan; The mixed Economy; District and State Plans; Resources for the Plan; Foreign Capital and the Public Sector.

Two sessions were organized in co-operation with other colleges. The first was an inter-collegiate Seminar on "The Plan and the Common Man", presided over by Mr. K. J. Antony of St. Aloysius College, held on the 16th November, Of the three speakers on the occasion, Mr. K. C. Nayar spoke on "Taxation and the Common man", Mr. S. Narayan on "Food Policy and the Common Man", Mr. Paul Varghese on "Employment and the Common Man". This was followed by group discussions and a lively general session. The other was a joint session of the Planning Forum of the city colleges at which the Deputy Commissioner Mr. T. J. Ramakrishnan was kind enough to address the students on the District Plan.

In November, the Forum conducted a Quiz on the draft outline of the Fourth Plan. Prathibha Devi of the final year class, won the prize.

The Planning Forum did extension work during the year, in a Harijan locality nearby where a literacy and needle-work class cum recreation centre was organized once a week. These classes were conducted up to January.

The members made a study on the socio-economic needs of the people in their respective localities, as observed by them, and reported on the same.

The "Each One Teach One Programme" was one of the activities. About 40 members undertook to teach one person to read and write during the year.

The valedictory function was held on February 20th. After a prayer service and the reading of the report, the Secretary spoke on "The Social Mission of a College". Certificates were awarded to active participants of the Forum.

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FINAL YEAR B.A., HISTORY – ECONOMICS MAJOR – SECTION A



FINAL YEAR B. A., HISTORY – ECONOMICS MAJOR – SECTION B

'The Plan and the Common Man'

Inter-Collegiate Planning Forum Seminar held on Nov. 16th, 1969.

President: K. J. Antony,

Speakers:

1. Taxation and the Common Man — K. C. Nayar
2. Food Policy and the Common Man — S. Narayanan
3. Employment policy and the common Man —Paul Varghese

WORKING PAPER

1. "To spread development effort more evenly and to ensure that its benefits accrue, at least in some measure, to the weaker and poorer sections of the community is an important objective of Planning". (Approach to the Fourth Plan).

"For a correct estimate of economic development—of the opportunities for the "good life" open to the masses of the people—the increase in the national product must be modified for the excessive output of capital goods and intermediate products, which can neither fill empty stomachs nor cover naked shoulders and of luxury and semi-luxutry goods which do not enter into mass consumption. It must be modified too by two other deflators, the piling up of idle production capacities and the addition to inventories."

"....when national income statistics are rid of these items of ballast, the development gain of the past decade of planning becomes a matter for speculation. Until the utter poverty of our people is overcome, economic development in India must be assessed by the consumption of food and cloth ...."

"....Planning has produced a' good life' not for the masses but for a thin layer of the parasitical minority of its beneficiaries." (Planning in India—A Commentary; edited by M. R. Pai)

1. Do you think that the plight of the common man has improved, deteriorated, or remained stationary as a net result of planning or has the effect been different on different groups? (Give concrete and specific reasons for your viewpoint.)

2. Do you think the interests of the common man are really at the centre of our planned effort? If not, what rethinking would you recommend in the general approach to planning?

II. Employment:

"The provision of larger employment opportunities is one of the main objectives of a plan of development. At the same time the pattern of employment has to be such as to promote further development. In the agricultural sphere, the emphasis on non-irrigated agriculture, on the small holder, on the fuller utilization of labour as a resource, would help to

spread the benefits of development, and provide opportunities for gainful employment. In the industrial sphere apart from the development of the infra-structure the emphasis on the dispersal of industries and the encouragement of the small scale sector will have a similar effect." (Approach to the Fourth Plan P. 36)

"It is sometimes argued that the creation of capital goods is part of the accepted strategy of economic growth, that in the gestation period of such growth a slower rate of increase in consumer goods is natural and that once the installed machinery goes into production abundant consumer goods will become available. This is a treacherous fallacy. The problems before underdeveloped economies are poverty and unemployment ....".

".....the problems of poverty and unemployment cannot be resolved better than by devoting the resources of production to the modernization of agriculture and the expansion of production of food, clothing and other consumer goods, heavy industries taking their due turn thereafter; to reverse the natural order and give line-clear priority to heavy industries is to reduce the expansion of output and employment to a fraction of their potential maximum. By choosing poverty and unemployment today we cannot have riches and more employment tomorrow." (Planning in India—a commentary by M. R. Pai)

1) What is the estimate of unemployment and underemployment in our country?

2) We have been planning to increase employment yet unemployment has increased with the Plans. What are the causes of this paradox?

3) How could our Plans be made more employment-orientated? What concrete measures would you suggest to increase employment and reduce underemployment?

4) Any special recommendations as regards educated unemployment?

III. Food:

"The Food Grains Policy Committee (1966) postulated 3 objectives of food policy: to achieve self-reliance in food production, to ensure equitable distribution, and to bring about price stability in the context of both production and distribution. The Committee went on to suggest that the latter two objectives could be achieved by planned management of food supplies involving such measures as procurement, control of inter-state movement of foodgrains, a system of public distribution and the building up of buffer stocks. Some of the measures recommended and indeed actually in operation—such as control of inter-state movement of foodgrains were related to a situation of grave shortage coupled with the necessity of maximum procurement. If the situation changes, so must the strategy. Thus changes would obviously be called for in the management of food supplies if the envisaged rate of growth in the production of foodgrains materialises in the Fourth Plan period. Food policy has to be formulated so us to meet different situations, whether of deficits or of surpluses. It must have a certain amount of flexibility. It must at the same time fit into the broad framework of economic policy ...."

"The achievement of the objectives set out above calls for skilful management of food supplies and a strategy which may have to be changed from year to year depending on the available food resources, price trends, inter-state disparity in prices and availability and the continuing need of maintaining a buffer

stock at the desired level. Within this policy framework there should be even room for manoeuvres, improvisation, and flexibility, provided progress is maintained towards the attainment of objectives set out. (Fourth Plan Draft 1969–74 P. 17)

"India's ability to maintain the planned level of industrial imports requires that food grain imports end by 1970–71. By then therefore, domestic food supply must equal demand. How fast will that demand grow? The planners expect population to grow at 2.5% per year, and income per head at 3%. Therefore if each 3% rise in an average Indian's income means a 1.8% rise in his spendong on food grains, the demand for food grains will grow by 4.3% yearly. Now in 1964–65 demand was 95.7 million tons. If this is to grow by 4.3% each year home foodgrain supply in 1970–71 must be 119.8 m. tons. (Michael Lipton: 'Stategy for Agriculture —Urban Bias and Rural Planning)

1) Do you think that the estimates and targets of food production in the Fourth Plan are realistic?

2) In what sense is the Fourth Plan crucial from the point of view of food production as well as food policy?

3) "Protection of the interests of the consumers, particularly of low income groups would have to be an objective of food policy." "As an incentive for higher production the farmer should get a reasonable price, even when surpluses emerge. How can these two objectives be simultaneously achieved? What is your opinion about food procured under P.L. 480 agreements?

4) Do you consider the need to change food habits and patterns of nutrition an important aspect of our food problem? What can students do in this matter?

IV. Fiscal Policy:

"In most underdeveloped economies of Africa and Asia which are wedded to the philosophy of democratic planning and mixed economy, public finance has to play a positive and dynamic role for the promotion and acceleration of the rate of economic development." "The achievement of a high rate of economic growth as the end of fiscal policy may come into conflict with its redistributive objective. Too much emphasis on the redistributive objective is bound to produce an adverse effect on incentive and this will retard economic growth. Thus a reconciliation has to be achieved between these conflicting ends of fiscal policy by imparting selective overtones to it". (R. N. Tripathy Public Finance in underdeveloped countries). "According to the older classical theory, taxation should be used only for the purpose of raising a certain revenue. Taxation as a means of redistributing incomes is foreign to the older theory of public finance ...."

"But modern theory justifies the use of taxation as a method of redistribution of incomes on social and economic grounds. Since depression and unemployment can be traced to inequality of income distribution, re-distributive measures commend themselves not merely on the grounds of social justice, but pre-eminently on economic grounds ...."

"The argument of social justice and the economic argument of taxation have thus become amalgamated in modern theory, that is to say the function of redistributive taxation is twofold. One function is the reduction of privtate savings; the other the equalisation of living standards." (V. G. Ramakrishna Iyer—'Public Finance')

"Under the peculiar conditions of our economy increasing reliance has to be

placed on indirect taxes to increase the savings of the community. Since the increased incomes generated by the Plans are intended to accrue to the common man we will have to raise more revenue from him than we should otherwise do, to increase savings and raise funds for further development. This would impose a burden on him which would otherwise be unnecessary. When the government undertakes an ambitious programme, the economic condition of the poor improves more rapidly than it would otherwise do. Hence there is justification for raising more revenue from them as their ability has been increased. Further, the schemes of expenditure for their benefit are also relatively more and so public finance as a whole improves their economic position." (Bhargava—Indian Public Finance)

1. Are you convinced that the common man should make an increasing contribution to the Plans which are intended largely for his benefit?

2. If the bulk of increased revenues should come from indirect taxation, how could the burden on the common man be minimized?

3. Direct taxation is recommended on grounds of equity. Yet in India it tends to be inequitable. Why?

What are the ingredients of a fiscal policy which will achieve the twin objectives of development and social justice, both of which are essential to improve the lot of the common man?

ಸೋದರಿ ನಿವೇದಿತಾ

PRABHAVATHI, *II B. A.*

ರತ್ನಗರ್ಭಳಾದ ವಸುಂಧರೆಯು ಜಗದ್ವಿಖ್ಯಾತರಾದ ಮಹಾ ಪುರುಷರಿಗೆ, ಧೀರರಿಗೆ, ವೀರರಿಗೆ, ಕಲಿಗಳಿಗೆ, ಕವಿಗಳಿಗೆ, ಕಲೆಗಾರರಿಗೆ ಮಾತ್ರವೇಕೆ? ಹಲವಾರು ಸ್ತ್ರೀ ರತ್ನಗಳಿಗೂ ಜನನಿಯಾಗಿರುವಳು. ಹಾಗೆಯೇ ಭಾರತದ ಸತ್ಪುತ್ರರಾಗಿ ಜನಿಸಿ ವಿಶ್ವವಿಖ್ಯಾತರಾದ ಸ್ವಾಮಿ ವಿವೇಕಾನಂದರೆಂಬ ಪರುಷದಿಂದ ಚಿನ್ನವಾಗಿ ಪರಿವರ್ತಿಸಲ್ಪಟ್ಟವರಲ್ಲಿ ನಿವೇದಿತಾ ಎಂಬ ಆಂಗ್ಲ ಮಹಿಳೆ ಒಬ್ಬಾಕೆ. ದುರ್ನಿವಾರ್ಯವಾದ ದುರ್ದಮನೀಯವಾದ, ಶೋಚನೀಯ ಪರಿಸ್ಥಿತಿ ಭಾರತ ದೇಶದಲ್ಲಿ ತಾಂಡವವಾಡುತ್ತಿರುವಾಗ ಆಕೆ ಭಾರತಕ್ಕೆ ಆಗಮಿಸಿದಳು. ಇಂತಹ ಮಹಾಮಣಿಯ ನೆರವು ಭಾರತಕ್ಕೆ ಅತ್ಯಗತ್ಯವಾಯಿತೆಂದರೆ ತಪ್ಪಾಗ ಲಾರದು. ಸ್ವಾಮಿವಿವೇಕಾನಂದರ ತಪಶ್ಯಕ್ತಿಯು "ನಿವೇದಿತಾ" ಎಂಬ ನಾಲೆಯ ಮೂಲಕ ಹರಿದು ಸಾವಿರಾರು ಜೀವಿಗಳ ಮೇಲ್ಮೈಗೆ ಕಾರಣವಾಯಿತು. ಅಧೋಗತಿಗೆ ಇಳಿದ ಭರತಖಂಡವನ್ನು ಪುನಃ ಜಗದ ಗೌರವಕ್ಕೆ ಪಾತ್ರವಾದ ಸಿಂಹಾಸನಕ್ಕೇರಿಸಬೇಕಾದರೆ ಇಂತಹ ಮಹಾಸಾಧ್ವಿಗಳ ಪರಿಶ್ರಮವು ಅತ್ಯವಶ್ಯತವಾಯಿತು. ಅದಕ್ಕೆ ತಮ್ಮ ಜೀವನವನ್ನೆಲ್ಲ ನಿವೇದಿಸಿ "ಸೋದರಿ ನಿವೇದಿತಾ" ಭಾರತದ ಅಭ್ಯು ದಯಕ್ಕಾಗಿ ಬದ್ಧಕಂಕಣಳಾಗಿ ಬಂದಳು.

ಸೋದರಿ ನಿವೇದಿತಾ ಭಾರತಾಂಬೆಯ ಸಾಕುಮಗಳಾಗಿದ್ದರೂ ಕೂಡಾ ಹುಟ್ಟುಮಕ್ಕಳಲ್ಲಿರುವ ಪ್ರೇಮಕ್ಕಿಂತ ಅಗಾಧವಾದ ದೇಶ ಪ್ರೇಮವು ಆಕೆಯಲ್ಲಿ ನೆಲೆಯೂರಿತ್ತು. ನಿವೇದಿತಳ ಮೊದಲ ಹೆಸರು ಮಾರ್ಗರೆಟ್ ಎಲಿಜಬೆತ್ ನೊಬೆಲ್. ಅಜ್ಜಿಯ ಪ್ರೇಮ ಸಲಿಲದಲ್ಲಿ ಬೆಳೆಯುತ್ತಿದ್ದ ಮಾರ್ಗರೆಟಳಿಗೆ ಭಗವಂತನ ಸಂಪೂರ್ಣ ಜ್ಞಾನವು ಆಕೆಯಿಂದ ದೊರೆಯಿತು. ತಂದೆ ತಾಯಿಗಳ ಆಶಾಂಕುರವು ಅವಳಿಂದ ಗಿಡವಾಗಿ, ಮರವಾಗಿ, ಹೂಬಿಟ್ಟಿತು. ವಿದ್ಯಾಭ್ಯಾಸದೊಂದಿಗೆ ಭಾರತದ ಲವಲವಿಕೆಯು ಮಾರ್ಗರೆಟಳಲ್ಲಿ ಅತಿಯಾಯಿತು. ಬೆಳೆಯುತ್ತಾ ಹೋದಂತೆ ಪ್ರೀತಿಸಬೇಕಾದ ವಸ್ತು ಭಗವಂತ ಒಬ್ಬನೇ ಎಂಬುದು ಅವಳ ಚೇತನಕ್ಕೆ ಆಳವಾಗಿ ಇಳಿಯುತ್ತಾ ಹೋಯಿತು. ಬಾಲಕಿಯ ಹೃದಯದಲ್ಲಿ ರಾಷ್ಟ್ರಭಕ್ತಿ, ದೈವಭಕ್ತಿ, ಶಾಶ್ವತವಾಗಿ ನೆಲಸಿದುವು. ಬಾಲ್ಯ ಸರಿಯುತ್ತಾ ಯೌವನಕ್ಕೆ ಕಾಲಿಡುತ್ತಾ ನಿರ್ಮಲ, ಕೋಮಲ, ಉದಾತ್ತ, ಕರುಣಾಮಯಿಯಾದ ಮಾರ್ಗ ರೆಟಳಿಗೆ ವಿದ್ಯಾಭ್ಯಾಸದ ಮಧ್ಯದಲ್ಲಿ ಎಂಜಿನಿಯರ್ ತರುಣನೊಬ್ಬನ ಪರಿಚಯವಾಗಿ ಸ್ನೇಹವಾಗಿ ಪರಿವರ್ತಿತವಾಯಿತು. ಆದರೆ ಮುಂದೆ ಆತನು ಖಾಯಿಲೆಗೆ ತುತ್ತಾಗಿ ಮೃತ್ಯುಶಯ್ಯೆಯನ್ನೈದನು. ಹುಣ್ಣಿನ ಮೇಲೆ ಬರೆ ಎಳೆದಂತೆ ಕಷ್ಟದ ಹಿಂದೆ ಕಷ್ಟವು ಒಂದೊಂದಾಗಿ ಬರಲು ನೊಬೆಲ್ ಭಾರವಾದ ಹೃದಯದಿಂದ ತಾಯಿಯ ಜತೆ ವಾಸಿಸಲು ಪ್ರಾರಂಭಿಸಿದಳು. ಅಹಹ! ವಿಧಿಯೇ? ನಿನ್ನ ಅಣತಿ ಯನ್ನು ಮೀರಲು ಸಾಧ್ಯವಿದೆಯೇ?

ಜೀವನ ಭಾರದಿಂದ ಸೋತು ಶರಣಾಗತಳಾದ ನೊಬೆಲಳಿಗೆ ಒಬ್ಬ ಗುರುವಿನ ಸಹಾಯವು ಬೇಕಾಗಿತ್ತು. "ರೋಗಿ ಬಯಸಿದ್ದು ಹಾಲು; ವೈದ್ಯನು ಕೊಟ್ಟದ್ದು ಹಾಲೆ"ಂಬಂತೆ ಸ್ವಾಮಿ ವಿವೇಕಾನಂದರ ಪ್ರಥಮ ದರ್ಶನವು ಇಂಗ್ಲೆಂಡಿನಲ್ಲಿ ಅವಳಿಗಾಯಿತು. ತಾನು ನಡೆಸು ತ್ತಿದ್ದ ಪ್ರಯೋಗಗಳನ್ನು ವಿವರಿಸುತ್ತಾ ತಾನು ನಡೆಸುತ್ತಿದ್ದ ಮಕ್ಕಳ ಶಾಲೆಗೆ ಸ್ವಾಮಿ ವಿವೇಕಾನಂದರನ್ನು ಕರೆದುಕೊಂಡು ಹೋದಳು. ಆಗ ಸ್ವಾಮಿಜಿಗೆ ಭಾರತದ ಚಿಂತಾಜನಕ ಸ್ಥಿತಿಯನ್ನು ನೆನೆದು ದುಃಖವು ಉಮ್ಮಳಿಸಿ ಅಂತರಾಳದಿಂದ ಮಾತುಗಳು ಹೊರಡ ಲ್ಪಟ್ಟವು, ಇದನ್ನು ಕೇಳಿ ನೊಬೆಲಳ ಹೃದಯ ಮಿಡಿಯಿತು. ಬಹು ದಿನದ ಬಯಕೆಯನ್ನು ಉಸುರಲು ತುಡಿಯಿತು. "ಭಗವಂತನ ಇಚ್ಛೆ ಹಾಗಿದ್ದರೆ.....ನಾನು ತಮ್ಮ ಜತೆ ಬರುವೆನು" ಎಂದಳು. ಭರತಖಂಡದ ಮಹಿಳೆ ಅನಂತ ಶಕ್ತಿಪೂರ್ಣಳು, ಅವಳ ಸಹನೆ ಶರಣಾಗತಿ ಧ್ಯೇಯಕ್ಕಾಗಿ ಹೋರಾಡುವ ಶಕ್ತಿ ಇವುಗಳು ಅವಳ ಅಂತರಂಗದಲ್ಲಿ ಸದಾ ಪ್ರಜ್ವಲಿಸುವಂತೆ ಮಾಡಿವೆ. ಅಂತಹ ಮಹಿಳೆಯರಿಗೆ ಮಹಾನಾಯಕಿಯೊಬ್ಬಳು ದೊರಕಿದಳೆಂದರೆ ಮುಂದೆ ಕೆಲಸಕಾರ್ಯಗತವಾದಂತೆ ಸರಿ ಎಂದು ಹೇಳಿದ ಗುರುದೇವನ ಮಾತು ನೊಬೆಲ್ಲಳ ಕುತೂಹಲವನ್ನು ಕೆರಳಿಸಿತು, ಭಾರತಕ್ಕೆ ಹಿಂದಿರುಗಿದ ಸ್ವಾಮಿ ವಿವೇಕಾನಂದರು ಕೊಲಂಬೋದಿಂದ ಅಲ್ಮೋರದ ವರೆಗೆ ಬಿರುಗಾಳಿ ಬೀಸಿದರು. ತನ್ನ ಮಿಂಚಿನ ಮಾತುಗಳಿಂದ ಸ್ವಾಮಿಜಿ ತಮೋ ಪ್ರವೃತ್ತಿಯ ಭಾರತೀಯರನ್ನು ಹೊಡೆದೆಬ್ಬಿಸಿದರು. ಅಜ್ಞಾನ ಅಸೂಯೆ, ದಾಸ್ಯ ದಾರಿದ್ರ್ಯ ಇವುಗಳೇ ಮೂರ್ತಿಮತ್ತಾದಂತೆ ಕಾಣುತ್ತಿದ್ದ ಭಾರತೀಯರನ್ನು ನಿರ್ದಾಕ್ಷಿಣ್ಯವಾಗಿ ಖಂಡಿಸಿ ಕುರಿ ಯಂತೆ ಮಲಗಿದ್ದ ಸಿಂಹಕೇಸರವನ್ನು ತುಡುಕಿ ಜಾಗೃತಗೊಳಿಸುವ ಕಾರ್ಯದಲ್ಲಿ ತೊಡಗಿದರು. ಈ ಕಾರ್ಯದಲ್ಲಿ ನೋಬೆಲ್ಲಳ ಅಗಣಿತ ಪರಿಶ್ರಮವು ಧಾರೆಯೆರೆಯಲ್ಪಟ್ಟಿತು. ಆಕೆಯ ಇಚ್ಛೆಯು ನೆರವೇರಿತು.

ಭಾರತಕ್ಕೆ ಪ್ರಯಾಣ ಹೊರಟಳು ಅವಳು. ಆಳಿನ ದೇಶದಲ್ಲಿ ಆಳಾಗಿ ದುಡಿಯುವುದಕ್ಕೆ ಧೀಮಂತ ಮಹಿಳೆಯೊಬ್ಬಳು ತ್ಯಾಗದ ವೀರ ಪ್ರತಿಜ್ಞೆಯನ್ನು ತೊಟ್ಟು ತಾನು ಕಂಡು ಅರಿಯದ ನಾಡಿನಲ್ಲಿ ದೀಪಸ್ತಂಭವಾಗಿ ನಿಲ್ಲಲು ತೆರಳಿದಳು ಅವಳು. "ಜನತಾ ಸೇವೆಯೇ ಜನಾರ್ಧನನ ಸೇವೆ" ಎಂಬ ನಾನ್ನುಡಿಯು ಅವಳಿಂದ ಪರಿಪೂರ್ಣತೆ ಯನ್ನು ಹೊಂದಿತು. ಇಬ್ಬರು ಅಮೇರಿಕನ್ ಮಹಿಳೆಯರು ಸ್ವಾಮಿಜಿ ಯನ್ನು ಗುರುವಾಗಿ ಸ್ವೀಕರಿಸಿ ಗುರುದೇವನ ದೇಶವನ್ನು ನೋಡ ಬೇಕೆಂದು ಭಾರತಕ್ಕೆ ಬಂದರು. ಆದರೆ ಇಲ್ಲಿ ಅವರಿಗೆ ಮಾರ್ಗರೆಟಳ ಭೇಟಿಯಾಯಿತು. ಪ್ರತಿಯೊಂದು ದಿನವು ಮಾರ್ಗರೆಟಳಿಗೆ ಕಷ್ಟತರ ವಾಗಿ ಕಂಡಿತು. ಪ್ರತಿಯೊಂದು ನಿಮಿಷವು ಹೊಸದೊಂದು ಪ್ರಪಂಚ ವನ್ನು ತೆರೆಯುತ್ತಿತ್ತು. ಆದರೆ ಮೊದಮೊದಲು ರಾಜಸಿಕ ಪ್ರವೃತ್ತಿಯ ಆಕೆಗೆ ಬೇಸರವಾಯಿತು. ತಾನೇನನ್ನು ಮಾಡಬೇಕು? ಎಲ್ಲಿಗೆ ಹೋಗ ಬೇಕು? ತನ್ನ ಧ್ಯೇಯವೇನೆಂಬುವುದು ತಿಳಿಯದಾಯಿತು. ಭಾರ ತೀಯ ಮಹಿಳೆ ಯಾವುದನ್ನು ಹುಟ್ಟಿನಲ್ಲಿ ಪಡೆದಿದ್ದಳೋ ಅದನ್ನು ನೊಬೆಲ್ ಶಿಕ್ಷಣದಿಂದ ಪಡೆಯಬೇಕಾಯಿತು. ಗುರುದೇವನ

ಒಂದೊಂದು ಬೋಧನೆಯು ಗುರು ಮತ್ತು ಶಿಷ್ಯೆಯರಲ್ಲಿ ಕಾಳಗವನ್ನೇ ಒಡ್ಡುತಿತ್ತು. ಮಹಿಳೆಯರಲ್ಲಿ, ಮಹಿಳೆಯಾಗಿ, ಗೌರವದ ಮೂರ್ತಿಯಾಗಿ, ವಿನಯದ ಮೆಟ್ಟುಗಲ್ಲಾಗಿ ಆಕೆ ರೂಪುಗೊಳ್ಳುವಂತೆ ಶ್ರಮಿಸುತ್ತಾ ಹೋದರು ಸ್ವಾಮಿಜಿ. ದಿನಗಳುರುಳಿದಂತೆ ಭರತ ಖಂಡದ ಹೃದಯದೊಂದಿಗೆ ಮಾರ್ಗರೆಟಳ ಹೃದಯ ಒಂದಾಯಿತು. ಶ್ರೀರಾಮಕೃಷ್ಣರ ಸಹಧರ್ಮಿಣಿ ಶಾರದಾಮಾತೆಯ ಭೇಟಿಯು ಮಾರ್ಚಿ ೧೭ನೆಯ ತಾರೀಖಿನಂದು ಆಯಿತು. ಅವರ ರೀತಿ ನೀತಿ ಆಚಾರವಿಚಾರ ಮಾರ್ಗರೆಟಳ ಮನಸ್ಸಿನ ಮೇಲೆ ವಿಶೇಷ ಪರಿಣಾಮವನ್ನುಂಟುಮಾಡಿತು, ಮಂತ್ರದೀಕ್ಷೆ, ಬ್ರಹ್ಮಚಾರಿಣಿ ವ್ರತವು ಶ್ರೀ ಗುರುವಿನಿಂದ ನೀಡಲ್ಪಟ್ಟಿತು. ತನ್ನ ಗುರುವಿನ ಜನ್ಮದಿನದಂದು ತನ್ನ ಪ್ರೀತಿಯ ಶಿಷ್ಯೆ ಮಾರ್ಗರೆಟಳನ್ನು, ದೇವರ ಮನೆಗೆ ಕರೆದುಕೊಂಡು ಹೋಗಿ ಶಿವನನ್ನು ಪೂಜಿಸುವ ವಿಧಾನವನ್ನು ಹೇಳಿಕೊಟ್ಟು "ನಿವೇದಿತಾ" ಎಂಬ ಹೆಸರನ್ನು ಕೊಟ್ಟರು. ನಿವೇದನೆಯು ಮುಗಿಯಿತು. ಅನಂತರ ಈ ದಿವ್ಯಮಂತ್ರವನ್ನು ಪೋಷಿಸಿದರು.

"ಓಂ ಅಸತೋ ಮಾ ಸದ್ಗಮಯ
ತಮ ಸೊ ರ್ಮಾ ಜ್ಯೋತಿರ್ಗಮಯ
ಮೃತ್ಯೋರ್ಮಾ ಅಮೃತಂಗಮಯ
ಓಂ. ಶಾಂತಿಃ ಶಾಂತಿಃ ಶಾಂತಿಃ

ಕೇವಲ ಆಧ್ಯಾತ್ಮಿಕ ಸಾಧನೆಗೆಂದು ಸಮಾಜಸೇವೆಗೆಂದು ಬಂದಿದ್ದ ನಿವೇದಿತೆ ರಾಜಕೀಯ ವ್ಯಕ್ತಿಯಾಗಿಯೂ ಪರಿವರ್ತಿತಳಾದಳು. ಹೆಣ್ಣುಮಕ್ಕಳಿಗಾಗಿ ಒಂದು ಶಾಲೆಯನ್ನು ಪ್ರಾರಂಭಿಸಬೇಕು ಎಂದು ನಿವೇದಿತೆ ನಿಶ್ಚಯ ಮಾಡಿದ್ದಳು. ಅದು ಕಾರ್ಯರೂಪಕ್ಕೆ ಬರತೊಡಗಿತು. ಕಲ್ಕತ್ತಾನಗರದಲ್ಲಿ ತಲೆದೋರಿದ ಪ್ಲೇಗಿನ ಹಾವಳಿಯನ್ನು ಸ್ವಿಮಿತದಲ್ಲಿಡುವುದಕ್ಕಾಗಿ ನಿವೇದಿತಾ ಹಲವಾರು ರೀತಿಗಳಲ್ಲಿ ಪ್ರಯತ್ನಿಸಿದಳು. ಕೆಲವೆಡೆ ತಾನೇ ಸ್ವಯಂ ರೋಗಿಗಳ ಸೇವೆಗೈದಳು. ಪ್ಲೇಗಿನ ವಿರುದ್ಧ ನಿವೇದಿತೆಯ ಹೋರಾಟ ಸತತವಾಗಿ ಮುಂದುವರಿಯಿತು. ಹಗಲೆನ್ನದೆ, ರಾತ್ರಿಯೆನ್ನದೆ ಗುಡಿಸಲು ಮನೆ, ಗಲ್ಲಿ ರಸ್ತೆಗಳನ್ನು ಅವಳು ಪೊರಕೆ ಹಿಡಿದು ಗುಡಿಸಿದಳು. ಮೂವತ್ತು ದಿನಗಳ ಕಾಲ ಕಲ್ಕತ್ತೆಯಲ್ಲಿ ಅಖಂಡವಾಗಿ ಸೆಣಸಾಡಿದಳು. ಅವಳ ದುಡಿಮೆಯಿಂದ ಮನೆ ಮನೆಗೂ ಆಕೆ "ಅಕ್ಕ" ಆದಳು. ಬ್ರಿಟನಿನಿಂದ ಬರುವಾಗ ಮಾರ್ಗರೆಟ ಆಗಿ, ಗುರುವಿನ ಪಾದಕಮಲದಲ್ಲಿ ನಿವೇದಿತೆಯಾಗಿ ಮುಂದೆ ಕಲ್ಕತ್ತಾದಲ್ಲಿ ಸೋದರಿ ನಿವೇದಿತೆಯಾದಳು.

ಬಾಳು ಬರಿಯ ಕರ್ಮಗಳ ಜಟಿಲತೆಗಾಗಿ ಅಲ್ಲ, ಕರ್ಮಗಳೆಲ್ಲಾ ಆತ್ಮಸಾಧನೆಗಾಗಿ" ಎಂಬ ಗುರುವಾಣಿ ಅವಳನ್ನು ಜಾಗೃತಳನ್ನಾಗಿ ಮಾಡಿತು. ತಾಯ್ನಾಡನ್ನು ಮರೆತು ಬಂದ ನಿವೇದಿತೆಗೆ ಮತ್ತೆ ತಾಯ್ನಾಡಿನ ಭೇಟಿಯಾಯಿತು. ಜೂನ್ ೨೦ರಿಂದ ಜುಲೈ ೩೧ರವರೆಗೆ ಸಮುದ್ರಯಾನದಲ್ಲಿ ಪ್ರಯಾಣ ಹೊರಟು ಇಂಗ್ಲೆಂಡನ್ನು ತಲುಪಿ ಮುಂದೆ ಅಮೇರಿಕಾವನ್ನು ಸೇರಿ ಚಿಕಾಗೋದಲ್ಲಿ ತನ್ನ ಸ್ವಾಮಿಜಿಯ ಕೆಲಸದಲ್ಲಿ ನೆರವಾಗಿ, ಸೋತು ಬೆಂಡಾಗಿ ಪ್ಯಾರಿಸಿಗೆ ಹೊರಟಳು. ಪ್ಯಾರಿಸಿನ್ನಲ್ಲಿ ಸೇವೆ ಸಲ್ಲಿಸಿ ತನ್ನ ಮಾತೃಭೂಮಿಗೆ ಹಿಂತೆರಳಿ ತಾನು ಕಲಿತಿದ್ದ ಅಭೀತಿಯ ಪಾಠವನ್ನು ಜನಸಮೂಹಕ್ಕೆ ಭೋಧಿಸಿದಳು. ಅವಳು ಭಾರತಕ್ಕೆಂದು ೧೯೦೨ನೆಯ ಜನವರಿ ೯ನೆಯ ತಾರೀಖು ಹಡಗು ಹತ್ತಿದಳು. ಅನಂತರ ಹಿಮಾಲಯದ ಮಯಾವತಿ ಎಂಬಲ್ಲಿ ಒಂದು ಮಠವನ್ನು ಸ್ಥಾಪಿಸಿ ಜೂನ್ ತಿಂಗಳಲ್ಲಿ ಕಲ್ಕತ್ತಕ್ಕೆ ಮರಳಿ ಬಂದಳು. ಆದರೆ ಸ್ವಾಮಿಜಿಯ ಸಾನಿಧ್ಯವು ಕೆಲವೇ ದಿನಗಳಲ್ಲಿ ದೂರವಾಯಿತು. ಸ್ವಾಮಿಜಿ ಪರಂಧಾಮವನ್ನೈದರು. ಬಿರುಗಾಳಿಗೆ ಸಿಕ್ಕ ಬಾಳೇಗಿಡದಂತೆ, ಬುಡ ತಪ್ಪಿದ ಮರದಂತೆ ನಿವೇದಿತೆ ಓಲಾಡಲು ತೊಡಗಿದಳು, ಸಿಡಿಲೆರಗಿದ ಆಕೆಗೆ ಆಕಾಶವೊಮ್ಮೆ ಕವಚಿ ಬಿದ್ದಂತಾಯಿತು. ಯುಗಪುರುಷನ ದೇಹವನ್ನು ಅಗ್ನಿಗೆ ಸಮರ್ಪಿಸಲು ಚಿತೆಯಿಂದ ಒಂದು ತುಂಡು ಚೂರು ಬಟ್ಟೆ ಅವಳೆಡೆಗೆ ಹಾರಿ ಬಂದಿತು. ಜೀವನದಲ್ಲಿ ಮತ್ತೊಮ್ಮೆ ಆಸೆ ಮಿಂಚಿತು.

ಧೀರ ಮಹಿಳೆ ನಿವೇದಿತಾ ಕಂಗೆಡದೆ ಭಾರತದ ಸ್ವಾತಂತ್ರ್ಯಕ್ಕಾಗಿ ಹೋರಾಡಿದಳು ಮಾತ್ರವಲ್ಲ ಜನಜಾಗೃತಿಯನ್ನುಂಟುಮಾಡುವುದರಲ್ಲಿ ತೊಡಗಿದಳು. ತನ್ನ ಮಹೋದ್ಯಮವನ್ನು ಸಾಧಿಸಲು ಆಕೆ ಭಾರತದ ಬೇರೆ ಬೇರೆ ಭಾಗಗಳಲ್ಲಿ ಪ್ರವಾಸಮಾಡುವ ನಿರ್ಧಾರವನ್ನು ಕೈಕೊಂಡಳು. ಬೊಂಬಾಯಿ, ಬರೋಡಾ, ನಾಗಪುರ, ವಾರ್ಧಾ ಈ ಸ್ಥಳಗಳಲ್ಲಿ ಉಪನ್ಯಾಸವನ್ನು ಮಾಡಿ ಎಲ್ಲೋರವನ್ನು ನೋಡಿ ನಿಶ್ಯಕ್ತಿ ತಲೆದೋರಿದುದರಿಂದ ಉಳಿದ ಕಾರ್ಯಕ್ರಮಗಳಿಗೆ ತಿಲಾಂಜಲಿಯನ್ನಿತ್ತು ನಿವೇದಿತಾ ನವೆಂಬರ್ ೭ನೇಯ ತಾರೀಖಿನಂದು ಕಲ್ಕತ್ತೆಗೆ ಹಿಂದುರುಗಿದಳು. ಆಳುವ ನಾಡಿನ ಮಹಿಳೆಯೊಬ್ಬಳು ಈ ನಾಡಿನವಳಾಗಿ ಬೆರೆತು ಇಲ್ಲಿನ ಮಹಿಮೆಯನ್ನು ನಿಷ್ಕಲ್ಮಶ ಹೃದಯದಿಂದ ಪರಮ ಪ್ರಾಮಾಣಿಕತೆಯಿಂದ ತಾರಸ್ವರದಲ್ಲಿ ವರ್ಣಿಸುತ್ತಿದ್ದಾಳೆ. "ರಾಷ್ಟ್ರೀಯ ಪ್ರಜ್ಞೆ" ಎಂಬ ಪದವನ್ನು ಕಂಡು ಹಿಡಿದದ್ದು ಅವಳೇ, ಬಂಗಾಳ ವಿಭಜನೆ ಲಾರ್ಡ್ ಕರ್ಜನ್ ಭಾರತಕ್ಕೆ ಮಾಡಿದ ಮಹಾದ್ರೋಹವೆಂದು ತಿಳಿದು ಅಂದು ಆಕೆ ನುಡಿದ "ನನಗೆ ಜನ್ಮವಿತ್ತ ನಾಡಿಗೆ ಧಿಕ್ಕಾರ"ವೆಂಬ ವಾಣಿ ಜನಮನದ ತಮಸ್ಸನ್ನು ಕಳೆಯಿತು. ಸ್ವಾತಂತ್ರ್ಯರಂಗದಲ್ಲಿ ಅನವರತ ಹೋರಾಡಿ ಪುನಃ ತನ್ನ ಮಾತೃಭೂಮಿಗೆ ಭೇಟಿಯಿತ್ತು, ಭಾರತದ ವಿಷಯ ಬ್ರಿಟಿಷರಿಗೆ ತಿಳಿಯಪಡಿಸಿ ಉಪನ್ಯಾಸಗಳನ್ನು ನೀಡಿ ಮರಳಿ ಬಂದು ಭಾರತದಲ್ಲಿನ ಉಲ್ಲೋಲಕಲ್ಲೋಲತೆಯನ್ನು ಕಂಡು ಮರುಗಿದಳು.

ಸೋದರಿ ನಿವೇದಿತೆ, ಯುದ್ಧರಂಗದಲ್ಲಿ, ಧಾರ್ಮಿಕರಂಗದಲ್ಲಿ ರಾಜಕೀಯ ರಂಗದಲ್ಲಿ, ಹೋರಾಡಿ, ತನ್ನ ಅಂತಿಮ ದಿನಗಳನ್ನು ಡಾರ್ಜಲಿಂಗಿನ್ನಲ್ಲಿ ಕಳೆದು ಅಲ್ಲಿಯೇ ಇಹಲೋಕವನ್ನು ತ್ಯಜಿಸಿ ಪರಮ ಸಂತುಷ್ಟಿಯಲ್ಲಿ ಲೀನವಾದಳು. ಕೋಗಿಲೆ ತನ್ನ ಬಾಲ್ಯವನ್ನು ಕಾಗೆಯ ಗೂಡಿನಲ್ಲಿ ಕಳೆದು ಬೆಳೆದಾಗ ತಮ್ಮವರನ್ನು ಹುಡುಕಿಕೊಂಡು ಹಾರಿಹೋಗುವಂತೆ ನಿವೇದಿತಾ, ಇಂಗ್ಲೆಂಡಿನಲ್ಲಿ ಜನಿಸಿದರೂ ತನ್ನ ಗುರುವನ್ನು ಅರಸುತ್ತಾ ಭಾರತಕ್ಕೆ ಬಂದು ಭಾರತದಲ್ಲಿ ತನ್ನ ಜೀವನದ ಸುಧಾರಸವನ್ನು ಹರಿಯಗೊಟ್ಟು, ಭಾರತದ ಏಳಿಗೆಗೆ ಕಾರಣಳಾಗಿ ಗುರುದೇವನ ಸೂತ್ರಯಂತ್ರವನ್ನು ಪಠಿಸುತ್ತಾ ಭಾರತಕ್ಕೆ ತನ್ನ ಅರಿವನ್ನು ಮಾಡಿಕೊಟ್ಟು ಭಾರತದ ಸಂಸ್ಕೃತಿಯ ಉಜ್ವಲ ತೇಜಸ್ಸಿಗೆ ಕಾರಣಳಾದಳು. ಅವಳ ಕೀರ್ತಿ ಪತಾಕೆಯು ಭಾರತದಲಿ ಎಂದೆಂದಿಗೂ ಹಾರಾಡುತ್ತಾ ಇರಲಿ !

ಜೈ ಹಿಂದ್.



PUC ARTS — SECTION A



PUC ARTS — SECTION B

ಅಂದು ಇಂದು

PUSHPALATHA SUVARNA, *II B.A.*

ಇಂದು ಮಾನವನು ವಿಜ್ಞಾನಯುಗದಲ್ಲಿ ಕಾಲಿಟ್ಟಿರುವನು. ವಿಜ್ಞಾನದ ಮಹತ್ವವನ್ನು ಅವನು ತಿಳಿದವನಾಗಿ ಹಲವು ವೈಜ್ಞಾನಿಕ ಸಂಶೋಧನೆಗಳನ್ನು ನಡೆಸಿ ಸಫಲನಾಗಿರುವುದನ್ನು ನಾವು ಕಾಣ ಬಹುದು. ವೈಜ್ಞಾನಿಕ ಸಂಶೋಧನೆಯಿಂದ ಮಾನವನು ತನ್ನ ದುಡಿಮೆಯ ಶ್ರಮವನ್ನು ಕಡಿಮೆಮಾಡಿಕೊಂಡಿರುವನು. ಸಮಯದ ಉಪಯೋಗವನ್ನು ತಿಳಿದ ಮಾನವನು ಹಲವು ಸಂಶೋಧನೆಗಳಿಂದ ವ್ಯರ್ಥವಾಗುವ ಸಮಯವನ್ನು ಉಳಿಸಿಕೊಂಡಿರುವನು. ಹೆಚ್ಚಿಗೆ ಹೇಳುವುದಿದ್ದಲ್ಲಿ, ಮಾನವನು ತನ್ನ ಆಯುಷ್ಯವನ್ನು ವೃದ್ಧಿಮಾಡಿಕೊಂಡಿರುವನು. ಅನಾದಿ ಕಾಲದಲ್ಲಿ ಆದಿ ಮಾನವ ಜನಾಂಗವು ಪ್ರಕೃತಿಯ ಮೇಲೆ ತನ್ನ ಬಾಳುವೆಯನ್ನು ಇಟ್ಟುಕೊಂಡಿತ್ತು. ಇಂದು ಅದೇ ಮಾನವ ಜನಾಂಗವು ತನಗೆ ಬೇಕಾದ ರೀತಿಯಲ್ಲಿ ಪ್ರಕೃತಿಯನ್ನೇ ಅಳವಡಿಸಿಕೊಂಡಿರುವುದು. ಉದಾಹರಣೆಗೆ ವಿಜ್ಞಾನದ ಅರಿವನ್ನು ತಿಳಿಯದ ಆದಿಮಾನವನು ಪ್ರಕೃತಿ ಒದಗಿಸಿಕೊಟ್ಟ ವಸ್ತುಗಳನ್ನು ಉಪಯೋಗಿಸಿಕೊಂಡು ಪ್ರಾಣಿ ಜೀವನವನ್ನು ನಡೆಸಿಕೊಂಡು ಬರುತ್ತಿದ್ದನು. ಇಂದು ಅದೇ ಮಾನವ ಪ್ರಾಣಿಯು ನಿಸರ್ಗದಲ್ಲಿರುವ ವಸ್ತುಗಳಿಂದ ತನ್ನ ಬುದ್ಧಿಶಕ್ತಿ ಚತುರತೆಯಿಂದಲೂ ವೈಜ್ಞಾನಿಕ ಸಂಶೋಧನೆಗಳಿಂದಲೂ ತನಗೆ ಬೇಕಾದ ಹಲವು ವಸ್ತುಗಳನ್ನು ಸೃಷ್ಟಿಸಿ ಅದರ ಉಪಯೋಗವನ್ನು ಇತರರಿಗೆ ಒದಗಿಸಿಕೊಟ್ಟಿದ್ದಾನೆ. ಮಾನವನು ಇಂದು ವಿಜ್ಞಾನದ ತುತ್ತೆತುದಿಗೇರಿರುವನು. ಇಂದು ಪ್ರಪಂಚದ ಪ್ರತಿಯೊಂದು ದೇಶವೂ ವಿಜ್ಞಾನದಲ್ಲಿ ಮುಂದುವರಿದು ತನ್ನ ದೇಶದ ಜನರಿಗೆ ಅದರಿಂದ ಸಿಗುವ ಪ್ರತಿಯೊಂದು ಪ್ರಯೋಜನವನ್ನು ಒದಗಿಸಿಕೊಡುವುದರಲ್ಲಿ ಸಫಲವಾಗಿದೆ, ಎಂದು ಹೇಳಿದರೆ ಅತಿಶಯೋಕ್ತಿಯಾಗಲಾರದು.

ಅವಶ್ಯಕತೆಗಳೇ ಸಂಶೋಧನೆಗೆ ಮೂಲ ಕಾರಣ (Necessity is the mother of all inventions) ಎನ್ನುವಂತೆ ಪ್ರಪಂಚದಲ್ಲಿ ಅವಶ್ಯಕತೆಗಳು ಹೆಚ್ಚಾದ ಹಾಗೆ ಸಂಶೋಧನೆಗಳು ಹೆಚ್ಚಾಗಿ ಹಲವು ಹೊಸ ವಸ್ತುಗಳು ಬಳಕೆಗೆ ಬಂದುದನ್ನು ನಾವು ಕಾಣಬಹುದು. ಚರಿತ್ರೆಯಲ್ಲಿ ಓದಿತಿಳಿದಂತೆ ಮೊತ್ತ ಮೊದಲು ಮಾನವನು ಬೆಂಕಿಯನ್ನು ಕಂಡುಹಿಡಿದು, ಇಂದು ನಾವು ಯಾವ ರೀತಿಯಲ್ಲಿ ಯಾವ ಯಾವ ಸವಲತ್ತುಗಳಿಂದ ನಮ್ಮ ಜೀವನವನ್ನು ನಡೆಸುತ್ತಿದ್ದೇವೆ ಎನ್ನುವುದನ್ನು ತಿಳಿದರೆ ವೈಜ್ಞಾನಿಕ ಸಂಶೋಧನೆಯ ಅರಿವು ನಮಗಾಗುತ್ತದೆ. ನಾವು ಇಂದು ನಮ್ಮ ನಿತ್ಯ ಜೀವನದಲ್ಲಿ ಉಪಯೋಗಿಸುವ ಅನುಭವಿಸುವ, ವಸ್ತುಗಳೂ ವಿಷಯಗಳೂ ವೈಜ್ಞಾನಿಕ ಸಂಶೋಧನೆಯ ಪ್ರತಿರೂಪ. ಆಧುನಿಕ ವೈಜ್ಞಾನಿಕ ಸಂಶೋಧನೆಗಳಾದ ರೇಡಿಯೋ ಟೆಲಿಗ್ರಾಫ್, ವಿಮಾನ, ದೂರದರ್ಶಕ, ಟೆಲಿವಿಷನ್, ವಿದ್ಯುಚ್ಛಕ್ತಿ ಉಗಿಬಂಡಿ ಸೂಪರ್ ಸೋನಿಕ್, ಹೈಡ್ರೋಜನ್ ಬಾಂಬು, ಎಟಂಬೊಂಬು ಇವುಗಳ ಉಪಯೋಗವನ್ನು ಪಡೆಯುತ್ತಿರುವ ಆಧುನಿಕ ಜಗತ್ತನ್ನು ಪ್ರಾಚೀನ ಜಗತ್ತಿಗೆ ಹೋಲಿಸಿದರೆ ವಿಜ್ಞಾನವು ಮಾನವನ ಮೇಲೆ ಬೀರಿದ ಒತ್ತಡವನ್ನು ಗಮನಿಸಬಹುದು. ಕಾಡಿನಲ್ಲಿ ಹಸಿಗೆಡ್ಡೆಗೆಣಸು, ಹಸಿಮಾಂಸವನ್ನು ತಿಂದು ಬತ್ತಲೆಯಾಗಿ ಅಲೆದಾಡಿಕೊಂಡಿದ್ದು ಗುಹೆಯಲ್ಲಿ ರಾತ್ರಿ ಸಮಯವನ್ನು ಕಳೆದು ಮೃಗಗಳೊಟ್ಟಿಗೆ ಅವುಗಳ ಹಾಗೆಯೇ ಜೀವನಮಾಡಿಕೊಂಡಿದ್ದ ಮಾನವನನ್ನು ಇಂದು ನವನವೀನ ಬಟ್ಟೆಬರೆಗಳಿಂದಲೂ ಅಲಂಕಾರಗಳಿಂದಲೂ ಜೀವಾತುಗಳಿರುವ ಪೌಷ್ಟಿಕ ಆಹಾರವನ್ನು ಉಪಯೋಗಿಸಿಕೊಂಡು Apollo ೧೧ರಲ್ಲಿ ಸಂಚರಿಸುತ್ತಾ ಚಂದ್ರಲೋಕಕ್ಕೆ ಹೋಗಿ ಬರುವ ಮಾನವನೊಡನೆ ಹೋಲಿಸಿನೋಡಿದರೆ ವಿಜ್ಞಾನವು ಪ್ರಪಂಚದ ಮೇಲೆ ಬೀರಿದ ಪ್ರಭಾವವನ್ನು ಅವಲೋಕಿಸಬಹುದು. ಹಿಂದೆ ಚಂದ್ರಲೋಕವೆಂದರೆ ಒಂದು ಗ್ರಹವೆಂದೂ ಸ್ವರ್ಗಲೋಕವೆಂದೂ ದೇವತೆಯೆಂದೂ ಜನರು ಭಾವಿಸಿದ್ದರು. ಇಂದು ಅಮೇರಿಕದ ಮೂರುಜನ ಗಗನಯಾಮಿಗಳು ಚಂದ್ರಲೋಕಕ್ಕೆ ಹೋಗಿ ಅದು ದೊಡ್ಡ ದೊಡ್ಡ ಬಂಡೆಗಳಿಂದಲೂ ಖನಿಜಗಳಿಂದಲೂ ಕೂಡಿದ ಪ್ರಶಾಂತವಾದ ಪ್ರದೇಶವೆಂದು ನಮಗೆ ತೋರಿಸಿಕೊಟ್ಟಿದ್ದಾರೆ.

ವೈಜ್ಞಾನಿಕ ರಂಗದಲ್ಲಿ ಇನ್ನೊಂದು ಬೃಹತ್ ಸಂಶೋಧನೆ: ಸಾಯುವ ಸ್ಥಿತಿಯಲ್ಲಿರುವ ಮನುಷ್ಯನನ್ನು ಅದೇ ತಾನೆ ಸತ್ತ ಮನುಷ್ಯನ ಎದೆಗುಂಡಿಗೆ, ಮೂತ್ರಪಿಂಡ ಮೊದಲಾದುವುಗಳನ್ನು ದೇಹದೊಳಗೆ ಅಳವಡಿಸಿ ಅವನನ್ನು ಬದುಕಿಸಿದ ಸಾಹಸ. ಜರ್ಮನಿಯ ತಜ್ಞರು ಇದರಲ್ಲಿ ಸಫಲರಾಗಿದ್ದಾರೆ ಎಂಬುವುದು ಹೆಮ್ಮೆಯ ವಿಷಯವೇ ಸರಿ. ವಿಜ್ಞಾನವು ಇಷ್ಟು ಮುಂದುವರಿದರೂ ಪ್ರತಿಯೊಂದು ದೇಶವು ಸಮಾನತೆಯಿಂದಿಲ್ಲ. ಒಂದೊಂದು ದೇಶದಲ್ಲಿ ಒಂದೊಂದು ವಿಧವಾದ ಅನಾನುಕೂಲತೆ ಇದ್ದೇ ಇದೆ. ಉದಾಹರಣೆಗೆ ನಮ್ಮ ದೇಶವನ್ನು ತೆಗೆದುಕೊಂಡರೆ ನಾವು ಇನ್ನೂ ಅಮೇರಿಕ, ಇಂಗ್ಲೆಂಡ್, ರಷ್ಯ ಜಪಾನ್‌ಗಳಂತಹ ಮುಂದುವರಿದ ದೇಶಗಳಿಗಿಂತ ಎಷ್ಟೋ ಹಿಂದುಳಿದಿದ್ದೇವೆ. ನಮ್ಮಲ್ಲಿ ಆಹಾರದ ಅಭಾವ, ಜನ ಸಂಖ್ಯೆಯ ಒತ್ತಡ, ನಿರುದ್ಯೋಗ ಸಮಸ್ಯೆ ತಲೆಯೆತ್ತಿಕೊಂಡಿದೆ. ಆದರೂ ಸಹ ವಿಜ್ಞಾನದ ಸಹಾಯದಿಂದ ಅದನ್ನು ತಡೆಗಟ್ಟಲು ಹೊರಟಿದ್ದೇವೆ; ಅಲ್ಲದೆ ಸ್ವಲ್ಪಾಂಶ ಸಫಲತೆಯನ್ನು ಕೂಡಾ ಹೊಂದಿರುವೆವು.

ಇಂದು ವೈಜ್ಞಾನಿಕ ಸಂಶೋಧನೆಗಳಿಂದ ಮಾನವ ಕಲ್ಯಾಣ ನಿಜ. ಆದರೆ ವೈಜ್ಞಾನಿಕ ಪ್ರಗತಿಯಿಂದಾಗಿ ನಾವೀಗ ಪ್ರಪಂಚದಲ್ಲಿ ಗಂಡು ಹೆಣ್ಣು ಎಂಬೆರಡು ಭೇದಗಳನ್ನು ಬಿಟ್ಟು ಉಳಿದ ಭೇದಗಳನ್ನು ಮರೆತಂತೆ ಕಾಣುತ್ತೇವೆ. ಸನಾತನ ಧರ್ಮಾನುಯಯಿಗಳಾದ ನಮ್ಮಲ್ಲಿ ಇಂದು ಆಧ್ಯಾತ್ಮಿಕ ಚೇತನ, ಧರ್ಮದ ಅವಲೋಕನ, ಪರಮಾತ್ಮನಲ್ಲಿಟ್ಟಿರುವ ಭಕ್ತಿ ಎಲ್ಲಾ ನಶಿಸಿದಂತೆ ತೋರುತ್ತದೆ.

ಇಪ್ಪತ್ತನೆಯ ಶತಮಾನದಲ್ಲಿ ನಾವು ನಮ್ಮ ಪೂರ್ವಿಕರು ದೇವರೆಂದು ಪೂಜಿಸುತ್ತಿದ್ದ ಚಂದ್ರನ ಮೇಲೆ ಕಾಲಿಟ್ಟಾಯ್ತು. ಇನ್ನು ದೇವರಿಲ್ಲ ಎನ್ನುವ ಸಿದ್ಧಾಂತವನ್ನು ದೃಢಪಡಿಸುವ ಸಮಯ ದೂರವಿರಲಿಕ್ಕಿಲ್ಲ. ಆದುದರಿಂದ ವಿಜ್ಞಾನದ ದೆಸೆಯಲ್ಲಿ ನಾವೀಗ ನಮ್ಮಲ್ಲಿ ಭೇದವನ್ನು ಹುಡುಕುತ್ತಾ ಇದ್ದೇವೆ. ದೇಶವು ಇಷ್ಟು ಮುಂದುವರಿದರೂ ನಮ್ಮಲ್ಲಿ ಬಡವಬಲ್ಲಿದವೆನ್ನುವ ತಾರತಮ್ಯ ಇದ್ದೇ ಇದೆ. ಅದನ್ನೆಲ್ಲಾ ತೊರೆದು ವಿಜ್ಞಾನ ಯುಗದಲ್ಲಿ ಮೆರೆಯುವ ನಾವು ಅದರ ಉಪಯೋಗದಿಂದ ಬಡವ ಬಲ್ಲಿದವೆಂಬ ಭೇದ ಭಾವವನ್ನು ತೊರೆದು ಒಟ್ಟಾಗಿ ದೇಶದ ಏಳಿಗೆಗಾಗಿ ಶ್ರಮಿಸೋಣ. ವಿಜ್ಞಾನಯುಗದ ಮೂಲ ಅಸ್ತ್ರಗಳಾದ ಆಟಂಬಾಂಬು, ಹೈಡ್ರೋಜನ್‌ಬಾಂಬು ಮೊದಲಾದುವುಗಳನ್ನು ಮಾನವನ ಸರ್ವನಾಶಕ್ಕಾಗಿ ಬಳಸದೆ ಮಾನವ ಕಲ್ಯಾಣಕ್ಕಾಗಿ ಉಪಯೋಗಿಸಿ ಮುಕ್ತಿಯನ್ನು ಪಡೆಯೋಣ. "ದೇಶ ಕಲ್ಯಾಣವೇ ಮಾನವ ಕಲ್ಯಾಣ."

ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಅಶಿಸ್ತು

C. R. VIJAYALAKSHMI, *II B.A.*

ಪ್ರತಿಯೊಬ್ಬ ಮಾನವನ ಜೀವನವು ಸರ್ವತೋಮುಖವಾದ ಅಭಿವೃದ್ಧಿಯನ್ನು ಹೊಂದಬೇಕಾದರೆ, ಅವನ ಬಾಳಿನಲ್ಲಿ ಶಿಸ್ತು ಪ್ರವೇಶಿಸಬೇಕಾದುದು ಅತ್ಯಗತ್ಯ. ಅದರಲ್ಲೂ ವಿದ್ಯಾರ್ಥಿಯ ಜೀವನದಲ್ಲಂತೂ, ಇದು ಅತ್ಯಾವಶ್ಯಕ. ವಿದ್ಯಾರ್ಥಿ ಎಂಬ ಪದವೇ ಇದರ ಅರ್ಥವನ್ನು ಸ್ಪಷ್ಟವಾಗಿ ಕೊಡುತ್ತದೆ. ವಿದ್ಯೆಯ ಅರ್ಥಿ ಅಂದರೆ ಬಯಸುವವನು ವಿದ್ಯಾರ್ಥಿ. ಇದರಿಂದ ನಾವು ಪ್ರತಿಯೊಬ್ಬ ವಿದ್ಯಾರ್ಥಿಯ ಗುರಿ ನಿಜವಾದ ವಿದ್ಯೆಯ ಸಾಧನೆಯೆಂದು ತಿಳಿಯಬಹುದು. ಆದರೆ ನಮಗೆ ಅಂದರೆ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ವಿದ್ಯೆಯು ಸಾಧಿಸಬೇಕಾದರೆ ನಾವು ಕಠಿಣ ಶಿಸ್ತನ್ನು ಪರಿಪಾಲಿಸಲೇಬೇಕು. ವಿದ್ಯಾರ್ಥಿ ಜೀವನವೆಂದರೆ ತಪಸ್ಸಿನಂತೆ. ಆ ಕಾಲದಲ್ಲಿ ನಾವು ನಮ್ಮ ಗುರಿಯನ್ನು ಸಾಧಿಸಲು, ಎಂತಹ ಕಷ್ಟಗಳಿಗೂ ಸಿದ್ಧವಾಗಿರಬೇಕು. ಆ ಸಮಯದಲ್ಲಿ ಶಿಸ್ತನ್ನು ಪರಿಪಾಲಿಸಬೇಕಾದುದು ನಾವು ಮಾಡಲೇಬೇಕಾದ ಕರ್ತವ್ಯವಾಗಿದೆ. ಆದುದರಿಂದ ಶಿಸ್ತು ವಿದ್ಯಾರ್ಥಿಯೊಡನೆ ನಿಕಟವಾಗಿ ಹೊಂದಿಕೊಂಡು, ಅವನ ಜೀವನದ ಉಸಿರಾಗಿದೆ.

ಆದರೆ ನಾವು ಇಂದಿನ ಜಗತ್ತಿನ ವಿದ್ಯಾರ್ಥಿಗಳನ್ನು ವೀಕ್ಷಿಸಿದರೆ, ಅವರಲ್ಲಿ ಶಿಸ್ತು ಇಲ್ಲವೆಂಬುದು ಸ್ಪಷ್ಟವಾಗಿ ವ್ಯಕ್ತವಾಗುತ್ತದೆ. ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಈ ಅಶಿಸ್ತು ನಾನಾ ರೂಪದಲ್ಲಿ ಕಾಣಿಸಿಕೊಂಡಿದೆ. ಈಚೀಚೆಗೆ ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಅಶಿಸ್ತು ಹೊಸರೂಪದಲ್ಲಿ ಮೂಡತೊಡಗಿದೆ. ಅವರು ತಮ್ಮ ಯಾವ ಬೇಡಿಕೆಗಳು ಈಡೇರದಿದ್ದರೂ, ಮುಷ್ಕರ ಪ್ರಾರಂಭಿಸಿ ಅವರ ಬೇಡಿಕೆ ನೆರವೇರುವವರೆಗೂ ಮುಂದುವರಿಸುತ್ತಾರೆ. ವಿದ್ಯಾರ್ಥಿಗಳು ತಮ್ಮ ಬೇಡಿಕೆ ನ್ಯಾಯವೋ, ಅನ್ಯಾಯವೋ ಎಂದು ಸಹ ಯೋಚಿಸುವುದಿಲ್ಲ. ಇದರ ಜತೆಗೆ ಈಗಿನ ವಿದ್ಯಾರ್ಥಿಗಳು ರಾಜಕೀಯ ಚಟುವಟಿಕೆಗಳಲ್ಲಿ ಸಹ ಭಾಗವಹಿಸಿ, ಅನೇಕ ರಾಜಕೀಯ ಮುಷ್ಕರಗಳಲ್ಲಿ ಸಹಕರಿಸಿದ್ದಾರೆ. ವಿದ್ಯಾರ್ಥಿಗಳ ರಾಜಕೀಯ ಮುಷ್ಕರದಿಂದ ಅನೇಕ ದೇಶಗಳಲ್ಲಿ ರಾಜಕೀಯ ಬದಲಾವಣೆಗಳಾಗಿವೆ. ಉದಾಹರಣೆಗೆ ಪಾಕಿಸ್ಥಾನದಲ್ಲಿ ಅಯೂಬ್ ಖಾನರ ಪದಚ್ಯುತಿ, ಇಂಡೋನೇಷ್ಯದ ಡಾ. ಸುಕಾರ್ನೊ ಅವರ ಪದಚ್ಯುತಿಗಳಿಗೆ ವಿದ್ಯಾರ್ಥಿಗಳ ಸಹಕರಿಸುವಿಕೆಯೇ ಕಾರಣವಿದೆ. ಮೊನ್ನೆಮೊನ್ನೆ ನಡೆದ 'ಹಿಂದಿ ಚಳುವಳಿ'ಯಲ್ಲಿ ವಿದ್ಯಾರ್ಥಿಗಳ ಪಾತ್ರವಂತೂ ನಮಗೆ ತಿಳಿದೇ ಇದೆ. ಈ ಎಲ್ಲಾ ಕಾರ್ಯಗಳಿಂದ ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಈಗ ಜಾತೀಯತೆಯಂತಹ ಸಂಕುಚಿತ ಮನೋಭಾವನೆಗಳು ಉದಯಿಸತೊಡಗಿವೆ. ಈ ಅಶಿಸ್ತಿನ ಚಟುವಟಿಕೆಗಳ ಅಂಗವಾಗಿ, ವಿದ್ಯಾರ್ಥಿಗಳು ಕಾರುಗಳನ್ನು ಸುಡುವುದು, ಸರಕಾರೀ ಕಟ್ಟಡಗಳಿಗೆ ಬೆಂಕಿಯಿಡುವುದು ಮುಂತಾದ ದೇಶದ್ರೋಹ ಕೆಲಸಗಳನ್ನು ಮಾಡಿ ದೇಶಕ್ಕೂ ಹಾನಿಯನ್ನು ತಂದು ಜತೆಗೆ ತಮ್ಮ ಜೀವನವನ್ನೂ ಸಹ ಹಾಳುಮಾಡಿಕೊಳ್ಳುತ್ತಿದ್ದಾರೆ. ಇಂತಹ ಹೊರಗಿನ ಅಶಿಸ್ತಿನ ಕಾರ್ಯಗಳಲ್ಲದೆ ತಮ್ಮ ಶಾಲೆಗಳಲ್ಲಿ ಸಹ ಅವಿಧೇಯರಾಗಿ ನಡೆದು, ಅಲ್ಲಿಯೂ ಸಹ ಶಿಸ್ತಿನ ಭಂಗ ಮಾಡುತ್ತಿದ್ದಾರೆ. ವಿದ್ಯಾರ್ಥಿಗಳ ಈ ಅಶಿಸ್ತಿಗೆ ಕಾರಣವಿಲ್ಲದೆ ಇಲ್ಲ. ಇದಕ್ಕೆ ನಾನಾ ರೀತಿಯ ಕಾರಣಗಳಿವೆ.

ವಿದ್ಯಾರ್ಥಿಗಳ ಅಶಿಸ್ತಿನ ಮೂಲ ವಿದ್ಯಾರ್ಥಿಗಳೆ ಆಗಿದ್ದಾರೆ. ಅವರು ಉಪಾಧ್ಯಾಯರುಗಳ ಕಷ್ಟವನ್ನರಿತು, ಪಾಠಮಾಡುವುದರಲ್ಲಿ ಅವರಿಗೆ ಸಹಕಾರನೀಡುವುದರ ಬದಲು ಇನ್ನೂ ಅವರನ್ನು ವಿರೋಧಿಸುತ್ತಾರೆ. ಹಿಂದಿನ ಗುರುಕುಲಗಳಲ್ಲಾದರೆ ಅದರ ಮಾತೇ ಬೇರೆಯಿತ್ತು. ಭಾರತದಲ್ಲಿ ಬ್ರಿಟಿಷರ-ಆಡಳಿತ ನಡೆಯುತ್ತಿದ್ದಾಗ, ಅವರ ಆಡಳಿತ ಬಿಗಿಯಲ್ಲಿ ವಿದ್ಯಾರ್ಥಿಗಳ ಅಶಿಸ್ತಿನ ನಡವಳಿಕೆಗಳಿಗೆ ಅಸ್ಪದವೇ ಇರಲಿಲ್ಲ. ಆದರೆ ಭಾರತವು ಸ್ವತಂತ್ರವಾದ ಮೇಲೆ ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ "ನಾವು ಇನ್ನು ಸ್ವತಂತ್ರರು. ನಾವಿನ್ನು ಯಾರ ಅಧೀನದಲ್ಲಿದ್ದೂ, ಯಾರ ಮಾತನ್ನೂ ಕೇಳಿ ಯಾರಿಗೂ ವಿಧೇಯರಾಗಿರಬೇಕಿಲ್ಲ" ಎಂಬ ಮನೋಭಾವ ಮೂಡಿ, ಅವರೆಲ್ಲರೂ ಅದರಂತೆ 'ಸಸೇಮೀರ' ರಾಗಿದ್ದಾರೆ. ಗುರುಗಳು ಅವರಿಗೆನಾದರೂ ಉಪದೇಶದ ಎರಡು ಮಾತುಗಳನ್ನಾಡಿದರೂ, ವಿದ್ಯಾರ್ಥಿಗಳಿಗದು ಅವರ ಮೇಲೆ ಅಧಿಕಾರ ತೋರಿದಂತೆ ಭಾಸವಾಗಿ, ಅವರು ಆ ಮಾರ್ಗದರ್ಶಕರ ಕಡೆ ಲಕ್ಷ್ಯವೇ ಇಡದೆ ತಮ್ಮ ಬಾಳನ್ನು ಕೈಯಾರೆ ನಾಶಮಾಡಿಕೊಳ್ಳುತ್ತಾರೆ. ಎಲ್ಲ ಕಡೆಯೂ ಇದೇ ಪರಿಸ್ಥಿತಿ ಇರುವುದರಿಂದ ಈಚೀಚೆಗೆ ವಿದ್ಯಾಸಂಸ್ಥೆಗಳಲ್ಲೆಲ್ಲಾ ಅಶಿಸ್ತು ತಲೆದೋರಲಾರಂಭಿಸಿದೆ. ಇಂದಿನ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಶಿಸ್ತನ್ನು ಪಾಲಿಸುವುದೆಂದರೆ ಹುಡುಗಾಟಿಕೆ ಹಾಗೂ ಹಾಸ್ಯಾಸ್ಪದವಾದ ಕಾರ್ಯವೆನಿಸಿದೆ.

ವಿದ್ಯಾರ್ಥಿಗಳ ಅಶಿಸ್ತಿಗೆ ಗುರುಗಳೂ ಸಹ ಕಾರಣರಾಗುತ್ತಾರೆ. ಈಗಿನ ಉಪಾಧ್ಯಾಯರುಗಳೂ ಸಹ ತಮ್ಮ ವಿದ್ಯಾರ್ಥಿಗಳನ್ನರಿತುಕೊಳ್ಳಲು ಪ್ರಯತ್ನಿಸುವುದಿಲ್ಲ. ಕೆಲವರು ಆಗತಾನೇ ಪದವೀಧರರಾಗಿರುವುದರಿಂದ ಅವರಿಗೆ ಶಿಕ್ಷಣ ಕೊಡುವುದೇ ತಿಳಿದಿರುವುದಿಲ್ಲ. ಜೀವನೋಪಾಯಕ್ಕಾಗಿ ಅವರು ಉಪಾಧ್ಯಾಯ ವೃತ್ತಿಯನ್ನು ಅವಲಂಭಿಸಿರುವುದರಿಂದ, ಅವರಿಗೆ ವಿದ್ಯಾರ್ಥಿಗಳ

ಹಿತಗಳ ಕಡೆಗೆ ಲಕ್ಷ್ಯವಿರುವುದಿಲ್ಲ. ಊದುವ ಶಂಖ ಊದಿ ಅವರು ಸುಮ್ಮನೆ ಹೊರಟು ಬಿಡುತ್ತಾರೆ. ತಾವು ಮಾಡಿದ್ದು ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಅರ್ಥವಾಗಿದೆಯೋ ಇಲ್ಲವೊ ಎಂದೂ ಸಹ ಅವರು ವಿಚಾರಿಸುವುದಿಲ್ಲ. ಉಪಾಧ್ಯಾಯರು ಹೀಗಿದ್ದರೆ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಹೇಗೆ ತಾನೇ ಪಾಠ ಕೇಳಲು ಮನಸ್ಸಾದೀತು? ಕೆಲವರು ಹೀಗಾದರೆ ಇನ್ನು ಕೆಲವರು 'ತಾವೇ ದೊಡ್ಡ ವಿದ್ವಾಂಸರೆಂದು' ತಿಳಿದು ವಿದ್ಯಾರ್ಥಿಗಳನ್ನು ನಿಕೃಷ್ಟವಾಗಿ ಕಂಡು, ಅವರು ತಾವು ಹೇಳಿದಂತೆ ಕೇಳಲೆಂದು ಬಯಸುತ್ತಾರೆ. ಆದರೆ ಇಂದಿನ ವಿದ್ಯಾರ್ಥಿ ಅದರಂತೆ ನಡೆಯಲು ಸಾಧ್ಯವೇ? ಸಾಧ್ಯವಿಲ್ಲ ಎಂದು ವಿದ್ಯಾರ್ಥಿಯಾದ ನಾನೇ ಹೇಳುತ್ತೇನೆ. ಇದರಿಂದ ಗುರು ಶಿಷ್ಯರಲ್ಲಿ ಹಾರ್ದಿಕ ಸಂಬಂಧ ಬೆಳೆಯದೆ, ವಿದ್ಯಾರ್ಥಿಗಳ ಮನದಲ್ಲಿ ಉಪಾದ್ಯಾಯರೇ ಅಶಿಸ್ತಿನ ಬೀಜವನ್ನು ಬಿತ್ತಿದ ಹಾಗಾಗುತ್ತದೆ. ಇದರಿಂದ ಅವರಿಬ್ಬರ ಮಧ್ಯೆ ದೊಡ್ಡ ಬಿರುಕುಂಟಾದಂತಾಗಿ, ವಿದ್ಯಾರ್ಥಿಯ ವಿದ್ಯಾಪ್ರಗತಿ ಕುಂಠಿತವಾಗುತ್ತದೆ. ಇಂದಿನ ಉಪಾಧ್ಯಾಯ ಮತ್ತು ವಿದ್ಯಾರ್ಥಿಗಳಿಬ್ಬರಲ್ಲೂ ಅವರವರ ಜವಾಬ್ದಾರಿಯ ಅರಿವಿರುವುದಿಲ್ಲ ಇವುಗಳೆಲ್ಲದರ ಫಲವಾಗಿ ಇಂದಿನ ಶಿಕ್ಷಣ ಕ್ರಮವು ಜವಾಬ್ದಾರಿಯುತವಾದ ಗೌರವಯುಕ್ತ ಪ್ರಜೆಯನ್ನು ಸೃಷ್ಟಿಸುವುದರ ಬದಲು ಅನಾಗರಿಕ ಗುಮಾಸ್ತರನ್ನು ತಯಾರಿಸಲು ತೊಡಗಿಸಿದೆ. ಇದರ ಮೂಲಕಾರಣ ವಿದ್ಯಾರ್ಥಿಗಳ ಅಶಿಸ್ತು ಆಗಿದೆ.

ದೇಶದ ಇಂದಿನ ರಾಜಕೀಯ ಸ್ಥಿತಿಗತಿಗಳು ಕೂಡ ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಅಶಿಸ್ತು ಮೂಡಲು ಕಾರಣವಾಗಿವೆ. ಇಂದಿನ ರಾಜಕೀಯ ಚಳುವಳಿ ಅಥವಾ ಮುಷ್ಕರಗಳೆಲ್ಲದರಲ್ಲೂ ವಿದ್ಯಾರ್ಥಿಗಳ ಪಾತ್ರ ವಿದ್ದೆ ಇರುತ್ತದೆ. ರಾಜಕೀಯವೆಂದರೆ ಡೊಂಬರಾಟವೆಂಬುದು ಅಕ್ಷರಶಃ ಸತ್ಯ. ಹೀಗೆಂದು ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ರಾಜಕೀಯದ ಆಗು ಹೋಗುಗಳೆ ತಿಳಿದಿರಬಾರದೆಂದು ನನ್ನ ಅಭಿಪ್ರಾಯವಲ್ಲ. ಆದರೆ ಅವರು ಅದರಲ್ಲೇ ಲೀನಗೊಂಡಿರಬಾರದು. ರಾಜಕಾರಣದ ವ್ಯಾಪ್ತಿಯು ವಿದ್ಯಾಲಯದ ಆವರಣವನ್ನು ಒಳಗೊಂಡಿರಬಾರದು.

ಈ ಮುಖ್ಯವಾದ ಕಾರಣಗಳಲ್ಲದೆ, ಮಿತಿಮೀರಿದ ವಿದ್ಯಾರ್ಥಿ ದಟ್ಟಣೆ ಮತ್ತು ಅದೇ ಸಮಯದಲ್ಲಿ ಅಧ್ಯಾಪಕರ ಕೊರತೆ, ಗುರು ಶಿಷ್ಯರ ಕಾಲ್ಪನಿಕ ಸಂಬಂಧ, ವಿದ್ಯಾಲಯದ ಅಧಿಕಾರಿಗಳ ಸಿಡಿಲ ಧೋರಣೆ, ಆಧುನಿಕ ಸಮಾಜದ ಪ್ರಗತಿ ಮುಂತಾದವುಗಳೂ ಸಹ ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಅಶಿಸ್ತು ಮೂಡಿಸಲು ಹೆಚ್ಚಿನ ಪಾತ್ರವನ್ನು ವಹಿಸಿವೆ.

ನಾವು ಈಗ ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಅಶಿಸ್ತು ಮೂಡಿದೆಯೆಂದು ತಿಳಿದು ಸುಮ್ಮನೆ ಕುಳಿತಿರುವುದು ಒಳ್ಳೆತನವಲ್ಲ. ವಿದ್ಯಾರ್ಥಿಗಳೆಂದರೆ ರಾಷ್ಟ್ರದ ಜೀವನಾಡಿಗಳಿದ್ದಂತೆ. ಅವರಲ್ಲಿ ಅಶಿಸ್ತು ಮೂಡಿತೆಂದರೆ, ಜೀವನಾಡಿಯ ಕೆಲಸ ಕುಂಠಿತವಾದಂತೆಯೇ ಸರಿ. ವಿದ್ಯಾರ್ಥಿಗಳ ಮೇಲಿನ ಗಮನವೆಂದರೆ ರಾಷ್ಟ್ರದ ಏಳಿಗೆಗಾಗಿ ಮನಸ್ಸು ಕೊಟ್ಟಂತಾಗುತ್ತದೆ. ಶಿಸ್ತಿನ ಬಗ್ಗೆ ಡಾ. ಶ್ರೀಮಾಲಿಯವರು; "ಶಿಸ್ತಿನ ಸಮಸ್ಯೆ ಮಾನವೀ ಸಮಸ್ಯೆ, ಅದನ್ನು ಮಾನವೀ ನಿರ್ಧಾರದಿಂದಲೇ ಬಿಡಿಸಬೇಕು' ಎಂದಿದ್ದಾರೆ. ನೆಹರೂರವರು ಸಹ ಇಂದಿನ ಮಕ್ಕಳೇ ಮುಂದಿನ ಜನಾಂಗ ಎಂದಿದ್ದಾರೆ ಅವರೆಲ್ಲರ ಮಾತನ್ನು ತಮ್ಮ ನಡವಳಿಕೆಯಿಂದ ಪುಷ್ಟೀಕರಿಸಬೇಕಾದ್ದು ವಿದ್ಯಾರ್ಥಿಗಳ ಆದ್ಯ ಕರ್ತವ್ಯವಾಗಿದೆ.

ವಿದ್ಯಾರ್ಥಿಗಳ ಅಶಿಸ್ತಿಗೆ ಹೇಗೆ ಅವರೇ ಕಾರಣರಾಗಿದ್ದಾರೋ, ಅದರ ನಿವಾರಣೆಗೂ ಸಹ ಅವರೇ ಸಹಕಾರಿಯಾಗಿದ್ದಾರೆ. ರಾಷ್ಟ್ರವು ತನ್ನ ಮೇಲಿಟ್ಟುಕೊಂಡಿರುವ ಆಶೋತ್ತರಗಳನ್ನು ಪ್ರತಿಯೊಬ್ಬ ವಿದ್ಯಾರ್ಥಿಯು ಅರಿತು, ತನ್ನ ಅಶಿಸ್ತಿನಿಂದ ಅವನ್ನು ಧಕ್ಕೆಪಡಿಸದೆ ತಾನು ಮಾಡಬೇಕಾದುದೇನೆಂಬುದನ್ನರಿತು ಅದರಂತೆ ಮಾಡುವುದನಲ್ಲಿ ಅವನ ಮತ್ತು ದೇಶದ ಹಿತಗಳೆರಡೂ ಸೇರಿದೆ. ಶಿಕ್ಷಣದ ಬೆಲೆಯೂ ಸಹ ವಿದ್ಯಾರ್ಥಿಯನ್ನೇ ಅವಲಂಬಿಸಿದೆ. ಈಗ ಸದ್ಯದಲ್ಲಿ ಪ್ರತಿಯೊಬ್ಬ ವಿದ್ಯಾರ್ಥಿಯೂ ತನ್ನ ದೇಶದ ಪರಿಸ್ಥಿತಿಯನ್ನರಿತು ತನ್ನ ಶಿಸ್ತಿನಿಂದ ದೇಶಕ್ಕೆ ಹೇಗೆ ಅನುಕೂಲವಾಗುತ್ತದೆಂಬುದನ್ನು ತಿಳಿದು ಅದರಂತೆ ಅವನು ವರ್ತಿಸುವಂತೆ ಮಾಡಬೇಕಾದುದು ದೇಶದ ಕರ್ತವ್ಯವೂ ಆಗಿದೆ.

ಇದರ ಜತೆಗೆ ವಿದ್ಯಾರ್ಥಿಗಳ ಅಶಿಸ್ತನ್ನು ಹೋಗಲಾಡಿಸಲು ಸರಕಾರವೂ ಸಹ ಕೆಲವು ಕೆಲಸಮಾಡಬೇಕಾದುದು, ಇಂದಿನ ದೇಶದ ಪರಿಸ್ಥಿತಿಯಲ್ಲಿ ಅತ್ಯಗತ್ಯವಾಗಿದೆ. ಶಿಕ್ಷಣ ಕೇಂದ್ರಗಳಲ್ಲಿ ನುರಿತ ಮತ್ತು ಅನುಭವಿ ಉಪಾಧ್ಯಾಯರುಗಳನ್ನು ನೇಮಿಸುವುದು, ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ವಿದ್ಯೆ ಕಲಿಯಲು ಬೇಕಾದ ಹುರುಪು, ಉತ್ಸಾಹಗಳನ್ನು ಪ್ರೋತ್ಸಾಹಿಸುವ ರೀತಿಯಲ್ಲಿ ತುಂಬುವುದು, ರಾಜಕೀಯ ಮತ್ತು ವಿದ್ಯಾಭ್ಯಾಸಗಳಿಗಿರುವ ನಿಕಟ ಸಂಪರ್ಕವನ್ನು ಕಡಿಯುವದು, ದಿನದಿನಕ್ಕೆ ಕೆಳಗಿಳಿಯುತ್ತಿರುವ ಶಿಕ್ಷಣ ಮಟ್ಟವನ್ನೇರಿಸಿ ಗುರು ಶಿಷ್ಯರ ನಡುವಣ ಸಂಬಂಧವನ್ನು ಹಾರ್ದಿಕವನ್ನಾಗಿ ಮಾಡಲು ಪ್ರಯತ್ನಿಸುವುದು. ಇವೆ ಮುಂತಾದ ಸುಧಾರಣೆಗಳನ್ನು ಸರಕಾರ ಜಾರಿಗೆ ತಂದರೆ, ವಿದ್ಯಾರ್ಥಿಗಳ ಅಶಿಸ್ತು ಸ್ವಲ್ಪ ಮಟ್ಟಿಗಾದರೂ ಮಾಯವಾದೀತೆಂಬ ಭರವಸೆಯಿದೆ. ಇಂದಿನ ಪರಿಸ್ಥಿತಿಯಲ್ಲಿ ಈ ಸುಧಾರಣೆಗಳ ಅಗತ್ಯ ಎಷ್ಟರಮಟ್ಟಿಗಿದೆಯೆಂದು ನೀವೇ ಬಲ್ಲಿರಿ. ದೇಶದ ಹಿತಕ್ಕಾಗಿಯಾದರೂ ಈ ಕೆಲಸಗಳನ್ನು ಮಾಡಬೇಕಾದುದೊಂದೆ ಅಲ್ಲದೆ, ಆ ಸುಧಾರಣೆಗಳಿಂದ ಅವುಗಳ ಉದ್ದೇಶ ಫಲಕಾರಿಯಾಗಿದೆಯೋ ಇಲ್ಲವೋ ಎಂಬುದನ್ನೂ ಸಹ ಸರಕಾರ ನೋಡಬೇಕಾದುದು ಅದರ ಕರ್ತವ್ಯವಾಗಿದೆ.

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ಮಾತೆಯ ಖ್ಯಾತಿಯ ರಕ್ಷಣೆ

SULOCHANA, B. *II B.A.*

ಬನ್ನಿರಿ ಧೀರರೆ ಬನ್ನಿರಿ ಗೆಳೆಯರೆ
ಭಾರತಮಾತೆಯ ಪುತ್ರರೆ ಬನ್ನಿರಿ
ಹಾಡುತ ಬನ್ನಿರಿ ಹುರುಪಿನ ವೀರರೆ
ಭಾರತ ಮಾತೆಯ ರಕ್ಷಗೆ ನಿಲ್ಲಿರಿ.
ಬನ್ನಿರಿ . . . ॥ ೧ ॥

ಹಿಮಗಿರಿ ಮಕುಟವ ಶಿರದಲಿ ಇಟ್ಟಿಹ
ಹಸುರಿನ ಸೆರಗನು ಕಟ್ಟುತ ನಿಂತಿಹ
ತ್ರಿವರ್ಣ ರಂಜಿತ ಧ್ವಜವನು ಹಿಡಿದಿಹ
ಭಾರತ ಮಾತೆಯ ರಕ್ಷೆಗೆ ಬನ್ನಿರಿ.
ಬನ್ನಿರಿ . . . ॥ ೨ ॥

ಧೀರರು ಆಗಿಹ ಪುತ್ರರೆ ಸೇರುತ
ಹಾಡುತ ಬನ್ನಿರಿ ಹುರುಪಿನ ಮೊಗದಲಿ
ದ್ವೇಷವ ಬಿಡುತಲಿ ಸ್ನೇಹವ ಗಳಿಸುತ
ಮಾತೆಯ ಖ್ಯಾತಿಯ ರಕ್ಷೆಗೆ ನಿಲ್ಲಿರಿ.
ಬನ್ನಿರಿ . . . ॥ ೩ ॥

ನಮ್ಮನು ಹಡೆದಿಹ ಮಾತೆಯ ಮುತ್ತಲು
ಸಮಯವ ಕಾಯುತ ಗಡಿಯಲಿ ಇಹರೂ
ಮಾತೆಯ ಕಷ್ಟವ ಕಾಣದೆ ಕಣ್ಣಲಿ
ದೇಶದ ರಕ್ಷೆಗೆ ಕೂಡುತ ಬನ್ನಿರಿ.
ಬನ್ನಿರಿ . . . ॥ ೪ ॥

ನೀಡಿರಿ ತನುವನು ನೀಡಿರಿ ಮನವನು
ಮಾತೆಯ ರಕ್ಷೆಗೆ ನೀಡಿರಿ ಧನವನು
ಅಂಜದೆ ಅಳುಕದೆ ಮನದಲಿ ವೀರರೆ
ಮುಂದಡಿ ಇಡುತಲಿ ಸಾಗಿರಿ ಧೀರರೆ,
ಬನ್ನಿರಿ . . . ॥ ೫ ॥

ಜೀವದ ಹಂಗನು ತೊರೆಯುತ ಹಿಂದಕೆ
ಹಿರಿಯರು ಬಿತ್ತಿದ ತತ್ತ್ವವ ಮರೆಯಂದೆ
ದೇಶದ ರಕ್ಷೆಗೆ ನಡೆಯುತ ಮುಂದಕೆ
ವಿಜಯವ ಬಯಸುವ ಶೂರರೆ ಬನ್ನಿರಿ.
ಬನ್ನಿರಿ . . . ॥ ೬ ॥

ಹುರುಪಿನ ವೀರರೇ ಕೂಡಿರಿ ಒಂದು
ಧೈರ್ಯದಿ ಶೌರ್ಯದಿ ಹಗೆಗಳ ಒದ್ದು
ಅಮೃತ ಧಾರೆಯ ಎರೆಯಿರಿ ಭೂಮಿಗೆ
ತಂಪನು ನೀಡಿರಿ ಮಾತೆಯ ಮನಸಿಗೆ.
ಬನ್ನಿರಿ . . . ॥ ೭ ॥

ಜೈ ಜೈ ಭಾರತಿ ಜಯ ಜಯ ಭಾರತಿ
ಎಂಬೀ ಧ್ವನಿಯು ಏರಲಿ ಮುಗಿಲಿಗೆ
ಶಾಂತಿ ಪತಾಕೆಯು ಹಾರಲಿ ಮೇಲಕೆ
ಗಾಂಧಿಯ ತತ್ವವ ಸಾರಲಿ ವಿಶ್ವಕೆ.
ಬನ್ನಿರಿ . . . ॥ ೮ ॥

ಸತ್ತರೆ ಸಗ್ಗವು ಉಳಿದರೆ ಕೀರ್ತಿ
ಎನ್ನುತ ಬರಲಿ ಧೈರ್ಯದ ಮೂರ್ತಿ
ಭಾರತ ಮಾತೆಗೆ ವಿಜಯದ ಖ್ಯಾತಿ
ತುಂಬುತಲಿರಲಿ ಅಮರ್ದಿನ ಕೀರ್ತಿ.
ಬನ್ನಿರಿ . . . ॥ ೯ ॥

ರಾಷ್ಟ್ರದ ಧ್ವಜವು ಹಾರುತಲಿರಲಿ
ಮಾತೆಯ ಕೀರ್ತಿಯು ಹರಡುತಲಿರಲಿ
ಶಾಂತಿಯ ದೀಪವು ಉರಿಯುತಲಿರಲಿ
ದೇಶಕೆ ಬೆಳಕದು ತುಂಬುತಲಿರಲಿ.
ಬನ್ನಿರಿ . . . ॥ ೧೦ ॥

ಭಾರತ ದೇಶದ ಶೂರಗೆ ಜಯವು
ಮುಂದಡಿ ಇಟ್ಟಿಹ ಧೀರಗೆ ಜಯವು
ವಿಜಯೋತ್ಸಾಹದ ಮೂರ್ತಿಗೆ ಜಯವು
ಪ್ರಾಣವ ನೀಡಿಹ ಕುವರಗೆ ಜಯವು.
ಬನ್ನಿರಿ . . . ॥ ೧೧ ॥

ಗಾಂಧಿ ಮತ್ತು ಅಂತಃಸತ್ವ

REKHA, P. N. *II B.Sc.*

ಕಾರ್ಗತ್ತಲೆಯ ಆವರಣವನ್ನು ಭೇಧಿಸಿಕೊಂಡು ದಿವ್ಯಜ್ಯೋತಿಯೊಂದು ಮೂಡಲು ದಿಸೆಯಲ್ಲಿ ಮೇಲೆದ್ದು ಬಂತು. ಕ್ಷಣಾರ್ಧದಲ್ಲಿ ನೀಲಾಂಬರವು ಅರುಣಾಂಬರವಾಗಿ ಬೆಳಗಿತು. ರಾಗರಂಜಿತವಾದ ಹೊಂಬಣ್ಣವು ಪ್ರಕೃತಿಯ ಸುಪ್ತಚೇತನವನ್ನು ಬಡಿದೆಬ್ಬಿಸಿತು. ಸುಪ್ತಚೈತನ್ಯವು ತಾನೇ ತಾನಾಗಿ ಎಲ್ಲೆಲ್ಲೂ ಮಿಂಚತೊಡಗಿತು. ಈ ಚಿರನೂತನ ಸತ್ಯವೇ ಜಗತ್ತಿನ ಜೀವನಾಧಾರ, ಅಜ್ಞಾನದ ಅಧಃಪತನಕ್ಕೆ ಮೂಲಕಾರಣ.

ಇಂದಿಗೆ ಒಂದು ಶತಮಾನದ ಹಿಂದೆ ಇಂತಹದೇ ಒಂದು ದಿನ ಭಾರತವು ಅಜ್ಞಾನ ಹಾಗೂ ದಾಸ್ಯದ ಶೃಂಖಲೆಯಲ್ಲಿ ಜರ್ಝರಿತವಾಗಿ, ಭಾರತದ ಭವಿಷ್ಯದಲ್ಲಿ ಕೇವಲ ಶೂನ್ಯತೆಯೇ ಪ್ರತಿಬಿಂಬಿತವಾಗಿ ಕಾಣುತ್ತಿದ್ದಾಗ, ಸತ್ವಮಯ ಮಹಾ ಪುರುಷನೊಬ್ಬನ ಜನನವಾಯಿತು ಈ ಭಾರತದ ಪುಣ್ಯಭೂಮಿಯಲ್ಲಿ. ಈ ಪುರುಷನೇ ನಮ್ಮ ರಾಷ್ಟ್ರಪಿತ ಮಹಾತ್ಮಾಗಾಂಧಿ. ಆದರೆ ಅವರನ್ನು ಮಹಾತ್ಮರೆಂದು ಪರಿಗಣಿಸಲು ಭಾರತೀಯರಿಗೆ ಬಹು ಕಾಲವೇ ಬೇಕಾಯಿತು. ಕಾರಣ ಜನರನ್ನಾಕರ್ಷಿಸುವಂತಹ ಮೋಹಕ ರೂಪವಾಗಲೀ, ಉಡುಪಿನ ಆಡಂಬರವಾಗಲೀ, ಮುಖಸ್ತುತಿಯ ಚಾಕಚಕ್ಯತೆಯಾಗಲೀ ಅವರಲ್ಲಿ ಹುಡುಕಿದರೂ ಸಿಗುವಂತಿರಲಿಲ್ಲ.

ಅವರಲ್ಲಿದ್ದುದು ಕೇವಲ ಅಂತಃಶಕ್ತಿ, ಆತ್ಮಪ್ರೇರಣೆ, ವಿಶ್ವಾಸ ಹಾಗೂ ಸತ್ಯದ ಅರಿವು ಮಾತ್ರ. ಈ ಶಕ್ತಿಗಳೇ ಸುಳ್ಳನ್ನು, ಅನೀತಿಯನ್ನು ಪ್ರತಿಭಟಿಸಿ ಸತ್ಯಕ್ಕಾಗಿ ಆಗ್ರಹ ಮಾಡುವಲ್ಲಿ ಅವರ ಬೆಂಗಾವಲಾಗಿದ್ದುವು. ಇವೇ ಅವರ ಶಕ್ತಿ. ನಾವು ನಿಜವಾಗಿ ವಿವೇಚನಾತ್ಮಕವಾಗಿ ಹೇಳುವುದಾದರೆ ಗಾಂಧೀಜಿ ಒಬ್ಬ ವ್ಯಕ್ತಿಯಲ್ಲ. ಅವರೊಂದು ಮಹಾಶಕ್ತಿ. ಸಮಗ್ರ ಧರಿತ್ರಿಗೆ ಒಂದೊಮ್ಮೆಗೆ ಮಹಾ ತತ್ವವೊಂದನ್ನು ಕೊಚ್ಚಿತಂದ ಜ್ಞಾನ ಸಲಿಲದ ಮಹಾಪೂರ.

ಸತ್ಯ ಮತ್ತು ಅಹಿಂಸೆಯೇ ಅವರ ಸತ್ವದ ಮೂಲ. ಆತ್ಮ ಪ್ರೇರಣೆಯೇ ಅದಕ್ಕೆ ಬೆಂಬಲ. ಸತ್ಯಾಗ್ರಹ ಹಾಗೂ ಸಾತ್ವಿಕ ತೇಜವೇ ಅದರ ಪೂರಕ. ಗಾಂಧಿ ಮತ್ತು ಅಂತಃಸತ್ವವೆಂದರೆ ಒಂದೇ ನಾಣ್ಯದ ಎರಡು ಮುಖಗಳಿದ್ದ ಹಾಗೆ. ಒಂದಕ್ಕೊಂದು ಪೂರಕ ಹಾಗೂ ಬೆಂಬಲ.

ಇಡಿಯ ಜಗತ್ತಿನಲ್ಲೇ ಅತೀ ಬಲಿಷ್ಟವಾದ ಸಾಮ್ರಾಜ್ಯಸತ್ತೆ ಬ್ರಿಟಿಷರದು. ಅಂತಹ ಬೃಹತ್ ಸಾಮ್ರಾಜ್ಯದ ತಳಹದಿಯನ್ನೇ ಒಮ್ಮಿಂದೊಮ್ಮೆಗೆ ಅಲ್ಲಾಡಿಸಿದ ಮಹಾಶಕ್ತಿ ಅವರಲ್ಲಿತ್ತು. ದ. ಆಫ್ರಿಕದಲ್ಲಿ ಅವರು ತೋರಿಸಿದ ಸಾಹಸಕ್ಕೆ ಇಡಿಯ ವಿಶ್ವವೇ ಅಚ್ಚರಿಪಟ್ಟಿತ್ತು. ಕರಿಯ ವರ್ಣದ ಶೋಷಣೆಯ ಪರಾಕಾಷ್ಠತೆಯನ್ನು ಅಲ್ಲಿ ಕಂಡು ಪ್ರಥಮ ಬಾರಿಗೆ ಪ್ರತಿಭಟಿಸಿದ ಮಹಾವೀರ ಅವರಾಗಿದ್ದರು. ಅದೂ ಕೇವಲ ಆತ್ಮಶಕ್ತಿಯಿಂದಲೇ ಆ ಸತ್ಯಾಗ್ರಹದಲ್ಲಿ ಯಶಸ್ವಿಯಾದ ಅಗ್ರಗಣ್ಯ. ಇದು ದ. ಆಫ್ರಿಕದಲ್ಲಿನ ಅವರ ಜೀವನದ ಒಂದು ಅಂಕ.

ಭಾರತದಲ್ಲಿ ಅವರ ಎರಡನೆಯ ಅಂಕ. ತೆತ್ತಿಸ ಕೋಟಿ ಭಾರತೀಯರ ಏಕೈಕ ಸತ್ಯಾಗ್ರಹಿ ಮುಂದಾಳು ದರಿದ್ರ ನಾರಾಯಣನ ಏಕೈಕ ಭಕ್ತ. ಭಾರತ ಮಾತೆಯ ದಾಸ್ಯ ಬಂಧನವನ್ನು ಹರಿದ ವೀರ, ಸತ್ಪುತ್ರ. ಅವರ ಪ್ರತಿಭೆಗೆ, ಈ ಅಂತಃಶಕ್ತಿಗೆ ಮರುಳಾದವರೆಷ್ಟೋ ಮಂದಿ. ಸಂಪೂರ್ಣ ಆಂಗ್ಲ ಪ್ರಭಾವಕ್ಕೊಳಗಾದ ನೆಹರೂ ಪರಿವಾರವೇ ಅವರ ಭವ್ಯತೆಯೆದುರು ತಲೆಬಾಗಿತೆಂದರೆ, ಅವರ ಹಿರಿಮೆಗೆ ಬೇರೆ ನಿದರ್ಶನ ಬೇಕೇ? ರಾಜಕೀಯ ರಂಗದಲ್ಲಿ ಅವರ ಪಾತ್ರ ಬಹು ಹಿಂದು. ಅವರ ಪ್ರತಿಯೊಂದು ಚಲನ, ವಲನ ಹಾಗೂ ಹಿರಿಮೆಗಳು ನಮ್ಮ ಪ್ರಾಚೀನ ಭಾರತದ ಮಹರ್ಷಿಗಳನ್ನೇ ನೆನಪಿಗೆ ತರುತ್ತವೆ.

ಈಗ ಇರುವ ಮುಖ್ಯ ಪ್ರಶ್ನೆ ಎಂದರೆ ಈ ಅಂತಃಸತ್ವ ಅವರಿಗೆ ಹೇಗೆ ಲಭಿಸಿತು ಎಂಬುದು. ನಿಗೂಢವಾಗಿ ನಾವು ಅವರ ಜೀವನ ಚರಿತ್ರೆಯನ್ನು ಅಧ್ಯಯನ ಮಾಡಿದಾಗ ಒಂದು ವಿಷಯ ಸ್ಪಷ್ಟವಾಗುತ್ತದೆ. ಅವರಲ್ಲಿ ಅತ್ಯದ್ಭುತವಾದ ಮನೋಬಲ ಹಾಗೂ ಸ್ಥಿತ ಪ್ರಜ್ಞತೆ ಸದಾ ಜಾಗೃತವಿತ್ತು. ಅನೀತಿಯನ್ನು ಪ್ರತಿಭಟಿಸಿ ನೀತಿಯನ್ನು ಅನುಮೋದಿಸುವಲ್ಲಿ ಇದರ ಆವಶ್ಯಕತೆ ಬಹು ಮುಖ್ಯ. ಸಾಮಾನ್ಯರಿಗೆ ಅನೀತಿಯ ಅರಿವಾದರೂ ಪ್ರತಿಭಟಿಸುವ ಮನೋಬಲವಿರುವುದಿಲ್ಲ. ಇದೇ ಸಾಮಾನ್ಯರಲ್ಲಿರುವ ಅಂತಃಸತ್ವದ ನ್ಯೂನತೆ. ಆದರೆ ಗಾಂಧೀಜಿ ಅಸಾಮಾನ್ಯರು. ಸರ್ವಧರ್ಮಗಳ ಸಾರ ಸಂಗ್ರಹ ಸತ್ಯಾಸತ್ಯಗಳ ಪರಿಪೂರ್ಣ ಜ್ಞಾನ, ವಿವೇಕದ ಅಡಿಗಲ್ಲಿನ ಮೇಲೆ ವಿರಾಜಮಾನವಾಗಿದ್ದ ಸಾತ್ವಿಕ ಮನೋಭಾವ ಅವರಲ್ಲಿ ತಾನೇ ತಾನಾಗಿತ್ತು. ಇವೆಲ್ಲವುಗಳ ಪ್ರತಿಫಲನವೇ ಅವರ ಮುಖದಲ್ಲಿ ಮಿನುಗುತ್ತಿದ್ದ ದಿವ್ಯ ಅಂತಃಸತ್ವದ ಮಹಾ ತೇಜ. ಕಣ್ಣು ಕೋರೈಸುವ ಆ ಮಹಾ ತೇಜವೇ ಇಂದು ಶತಾಯುವಾಗಿ ಬೆಳಗುತ್ತಿದೆ. ಆ ದಿವ್ಯ ತೇಜಕ್ಕೆ ಮುಕುಳ ತರಪುಟರಾಗಿ, ಶ್ರದ್ಧಾಭಕ್ತಿಗಳಿಂದ ತಲೆವಾಗಿ ನಾವೆಲ್ಲರೂ ನಮಿಸಬೇಕು.

ಆಧುನಿಕ ಜಗತ್ತಿನಲ್ಲಿ ಮಾನವನ ನಾಗರಿಕತೆ, ಸಂಸ್ಕೃತಿಗಳು ಅಭಿವೃದ್ಧಿ ಹೊಂದುತ್ತಿವೆಯೇ?

B. CHANDRAVATHI, *III B.A.*

ಈ ಆಧುನಿಕ ಜಗತ್ತಿನಲ್ಲಿ ಜೀವನ ನೌಕೆಗೆ ಹುಟ್ಟನ್ನು ಹಾಕ ಬಯಸುವ ಪ್ರತಿಜೀವಿಯೂ ಅಗತ್ಯವಾಗಿ ಅವಲೋಕಿಸಬೇಕಾದ ವಿಚಾರವಿದು. ನಾಗರಿಕತೆ ಮತ್ತು ಸಂಸ್ಕೃತಿ ಇವು ಸದಾ ಒಂದನೊಂದು ಹೊಂದಿಕೊಂಡೇ ಇರುತ್ತವೆ. ಹಾಗಿದ್ದರೆ ಮಾತ್ರವೇ ಮಾನವನ ಜ್ಞಾನ, ಸಾಹಿತ್ಯ, ಜೀವನಕ್ರಮ ಮೊದಲಾದುವುಗಳು ತಮ್ಮ ಅಭಿವೃದ್ಧಿಯ ಪಥದತ್ತ ಹೆಜ್ಜೆಯನ್ನಿಕ್ಕಬಲ್ಲವು. ಹಾಲು ಮತ್ತು ನೀರು ಯಾವ ರೀತಿಯಲ್ಲಿ ಒಂದರೊಡನೊಂದು ಹೊಂದಿಕೊಳ್ಳಬಲ್ಲವೋ ಅದೇ ರೀತಿ ನಾಗರಿಕತೆ ಮತ್ತು ಸಂಸ್ಕೃತಿಗಳು ಜತೆಯಾಗಿ ಒಂದರೊಡನೊಂದು ಹೊಂದಿಕೊಂಡಿವೆ. ಇವು ಒಂದೇ ನಾಣ್ಯದ ಎರಡು ಮುಖಗಳಿದ್ದಂತೆ. ಎರಡೂ ಒಟ್ಟಾಗಿ ನೆಲೆನಿಂತರೆ ಮಾತ್ರವೇ ಮಾನವನ ಬಾಳಿನ ಅಭ್ಯುದಯ ಸಾಧ್ಯ. ಅವುಗಳೊಳಗಣ ಹೊಂದಾಣಿಕೆಗೆ ಚ್ಯುತಿಬಂದಾಗಲೇ, ಮಾನವನ ಅದಃಪತನದ, ಅಂಧಕಾರದ, ಅಜ್ಞಾನದ ಉದಯಕ್ಕೆ ನಾಂದಿಯನ್ನು ಹಾಡಿದಂತಾಗುವುದು

"ಪ್ರಾಚೀನ" ಎಂಬುದೆಲ್ಲವೂ ಗೌಣ. ಅರ್ವಾಚೀನ ಎಂಬುದು ಸ್ತ್ಯೃತ್ಯ ಎಂದು ಇಂದಿನ ಮಾನವನು ಅರಿತುಕೊಂಡಿದ್ದರೆ ಅದು ಆತನ ಅಜ್ಞಾನದ ಸಂಕೇತ ಅಷ್ಟೆ. ನಾವು ಇಂದಿಗೆ ಹಲವು ದಶಕಗಳ ಹಿಂದಿನ ಸಿಂಹಾವಲೋಕನ ಗೈದಲ್ಲಿ ನಮಗೆ ಅಂದಿನ ಶ್ರೇಷ್ಠತೆಯ ವೈಭವದ, ಹಿರಿತನದ ಅರಿವಾಗದಿರದು. ಅಂದು ಜನರಲ್ಲಿ ಓತಪ್ರೋತವಾಗಿದ್ದ ಧೈರ್ಯೋತ್ಸಾಹಗಳು, ವೀರತ್ವ, ಸಾಹಿತ್ಯಾಭಿರುಚಿ, ಭಾಷಾಜ್ಞಾನ ಇವೆಲ್ಲವೂ ಇಂದಿನ ನಾಗರೀಕತೆಯ ಸೋಗಿಗೆ ಸಿಲುಕಿ ಸಿಕ್ಕಾಗಿ ಬಿಟ್ಟಿವೆ. ಅಂದು ಸಮಾಜದಲ್ಲಿ ನಲಿದಾಡುತ್ತಿದ್ದ ಸ್ನೇಹ ಸೌಹಾರ್ದಗಳು, ಒಲವು ಒಮ್ಮತಗಳು ಇಂದು ಕಾಲನ ತೀವ್ರ ವೇಗಕ್ಕೆ ತುತ್ತಾಗಿ ನಶಿಸಿ ನಿರ್ನಾಮವಾಗಿವೆ. ತತ್ಫಲವಾಗಿ ಆಧುನಿಕ ಜೀವನಕ್ಕೆ ಮಾರು ಹೋದ ಮಾನವನು ತನ್ನ ಮಾನವತ್ವವನ್ನು ಮರೆತು ಮೆರೆಯುವಂತಹ ಪರಿಸ್ಥಿತಿ ತಲೆದೋರಿದೆ. ಇವೆಲ್ಲ ಈ ನಾಗರೀಕತೆ ಸಂಸ್ಕೃತಿಗಳ ಕೈವಾಡವಿರಬಹುದೇ? ಅಥವಾ ಈ ಮಾಯಾಜಾಲದಲ್ಲಿ ಸಿಲುಕಿದ ಮತಿಹೀನ ಮಾನವನ ಪವಾಡವಿರಬಹುದೇ? ಎಂಬುದೀಗ ತರ್ಕಬದ್ಧವಿಚಾರವಾಗಿದೆ. ಮನುಷ್ಯನಲ್ಲಿ ಅತುಲವಾದ ಐಶ್ವರ್ಯವಿದ್ದರೂ ಸರಿ, ಅಥವಾ ಅಪಾರವಾದ ಜ್ಞಾನವಿದ್ದರೂ ಸರಿ, ಅವುಗಳಿಂದ ನಿಜವಾದ ಪ್ರಯೋಜನ ದೊರಕ ಬೇಕಾದರೆ ಅವನ್ನು ಆವರೀತಿಯಲ್ಲಿ ವಿನಿಯೋಗಗೊಳಿಸಬೇಕೆಂಬುದು ಆತನಿಗೆ ತಿಳಿದಿರಬೇಕು. ಅಂತೆಯೇ ನಾಗರಿಕತೆ ಸಂಸ್ಕೃತಿಗಳು ಮಾನವನನ್ನು ಬೆಂಬತ್ತಿ ಹೋಗಲಾರವು. ಮಾನವನು ತಾನೇ ವಿವೇಕಪರವಾಗಿ ಅವನ್ನು ತನ್ನ ಜೀವನದಲ್ಲಿ ಸರಿಯಾದ ರೀತಿಯಲ್ಲಿ ಅಳವಡಿಸಿಕೊಂಡರೆ ಮಾತ್ರ ಈ ಜಗತ್ತಿನ ಕಲ್ಯಾಣವಾಗುವುದರಲ್ಲಿ ಸಂದೇಹವಿಲ್ಲ.

ಸಹಜವಾಗಿ ಮಾನವನು ತನ್ನ ಕ್ಷುದ್ಬಾಧೆಯನ್ನು ಪರಿಹರಿಸಿಕೊಂಡು ಬಟ್ಟೆಬರೆಗಳಿಂದ ತನ್ನ ಸೌಂದರ್ಯವನ್ನು ಕಾಪಾಡಿಕೊಂಡು, ಪ್ರಕೃತಿಯ ಕಾವ್ಯಸನ್ನಿವೇಶಗಳೆನಿಸಿದ ಚಳಿ, ಗಾಳಿ, ಮಳೆಗಳಿಂದ ರಕ್ಷಣೆಯನ್ನು ಪಡೆಯಲೋಸುಗ ಚಿಕ್ಕ ಗುಡಿಸಲನ್ನು ನಿರ್ಮಿಸಿಕೊಂಡು ಇದ್ದರೆನೇ ಸರಿಯಾದ, ಸುಸೂತ್ರವಾದ ರೀತಿಯಲ್ಲಿ ಸಂಸಾರವನ್ನು ಸಾಗಿಸಬಲ್ಲನು. ಮಾನವನಿಗೆ ಅತಿ ಅವಶ್ಯಕವೆನಿಸಿದ ವಸ್ತುಗಳೆಂದರೆ ಇವು ಮೂರು ಮಾತ್ರ. ಅವನ್ನು ಯಾವ ರೀತಿಯಲ್ಲಿ ಬೇಕಾದರೂ ಪ್ರವರ್ತಿಸಿಕೊಂಡು ಬಳಸುವ ಹಕ್ಕು ಆತನಿಗಿದೆ. ಆದರೆ ಎಲ್ಲದಕ್ಕು ಒಂದು ಮಿತಿ ಇರುವಂತೆ ನಾಗರೀಕತೆಗೂ ಒಂದು ಎಲ್ಲೆ ಎಂಬುದಿದೆ. ಯಾವಾಗ ಈ ಎಲ್ಲೆಯನ್ನು ಮೀರಿ, ನಾಗರಿಕತೆ ಸಂಸ್ಕೃತಿಗಳು ಹೊರಬಂದುವೋ ಅಂದಿಗೆ ಅವು ಮಾನವನಿಂದ ತಪ್ಪಿಸಿಕೊಂಡು ತಮ್ಮದೇ ಆದ ಪ್ರಪಂಚಕ್ಕೆ ಪಲಾಯನ ಗೈದಂತೆ. ಅವುಗಳಿಂದ ವಂಚಿತನಾದ ಮಾನವನ ಬಾಳು ಹಾಳು. ಆದುದರಿಂದ ಬುದ್ಧಿಮತಿಯಾದ ಮಾನವನು ತನ್ನೆಲ್ಲ ಜಾಣ್ಮೆಯನ್ನು ಪ್ರದರ್ಶಿಸಿ ಅವನ್ನು ನಿರ್ದಿಷ್ಟ ಎಲ್ಲೆಯೊಳಗಿರಿಸಲು ಪ್ರಯತ್ನ ನಡೆಸಿದಲ್ಲಿ ಆತನ ಬಾಳು ಸಾರ್ಥಕವಾದಂತೆ ಸರಿ. ನಮ್ಮ ಪ್ರಾಚೀನರು ಈ ವಿಷಯವನ್ನು ಚೆನ್ನಾಗಿ ಅರಿತುಕೊಂಡಿದ್ದರು. ಇಲ್ಲವಾದರೆ, ಅಂದು ಆ ಕಾಡಿನ ನಡುವೆ, ನಿರ್ಜೀವ ಸಸ್ಯಗಳ ಮಧ್ಯದಲ್ಲಿ, ವನ್ಯಮೃಗಗಳ ಜತೆಯಲ್ಲಿ ಸಂತೋಷವಾಗಿ, ಸುಖಮಯ ಸಂಸಾರ ನಡೆಸುವ ಶಕ್ತಿ ಅವರಿಗೆ ಅದೆಲ್ಲಿಂದ ಬಂತು? ಅಂದಿನ ಜನರಿಗೆ ಇಂದಿನ ಕಾಲದಷ್ಟು ಸೌಕರ್ಯ ಸೌಲಭ್ಯಗಳಿರಲಿಲ್ಲವೆಂಬುದು ನಿರ್ವಿವಾದ. ಆದರೂ ಅಂದಿನ ಜನಜೀವನದಲ್ಲಿ ಇಂದಿನಷ್ಟು ಅತೃಪ್ತಿ ಅಸೂಯೆಗಳು ಹೊಗೆಯಾಡುತ್ತಿರಲಿಲ್ಲವೆಂಬುದೇ ನಿರ್ವಿವಾದ. ಏಕೆಂದರೆ ಅಂದಿನ ಜನರಲ್ಲಿ "ಕಿರಿದಲ್ಲಿ ಹಿರಿದನ್ನು ಕಾಣುವ" ಅದ್ಭುತ ಶಕ್ತಿ ಒಂದಿತ್ತು. ಆದುದರಿಂದ ಪ್ರತಿ ಒಬ್ಬನೂ ತಾನು ಪಡೆದುದರಲ್ಲಿ ತೃಪ್ತಿಯನ್ನು ಹೊಂದಿ, ಅತ್ಯಾಸೆಗೆ ಒಳಗಾಗದೆ ತೃಪ್ತಿಯ ಬಾಳ್ವೆಯನ್ನು ನಡೆಸುತ್ತಿದ್ದನು. ಸುತ್ತುಮುತ್ತಲಿರುವ ವಸ್ತುಗಳನ್ನು ಬಳಸಿಕೊಂಡು ತಮ್ಮ ಉಡುಪಿನ ಸಮಸ್ಯೆಯನ್ನು ಪರಿಹರಿಸಿಕೊಂಡರೆ, ತಮ್ಮ ಜತೆಗಿರುವ ಪ್ರಾಣಿಗಳ ಸಹಾಯದಿಂದ ಆಹಾರ ಸಮಸ್ಯೆಯನ್ನು ಪರಿಹರಿಸಿಕೊಂಡಿದ್ದರು. ಮಾತ್ರವಲ್ಲ ಬೇಕೆಂದಾಗ, ಬೇಕಾದೆಡೆಯಲ್ಲಿ ನೆಲೆನಿಲ್ಲಬಹುದಾದಂತಹ ಗುಡಿಸಲುಗಳನ್ನು ನಿರ್ಮಿಸಿಕೊಂಡು ಐಕಮತ್ಯ



P U C SCIENCE — SECTION A



P U C SCIENCE — SECTION B

ದಿಂದ ಜೀವನ ನಡೆಸುತ್ತಿದ್ದರು. ಬಿಡುವಿನ ವೇಳೆಯನ್ನು ಜ್ಞಾನಾರ್ಜನೆಗಾಗಿಯೊ, ಕಲಾರಾಧನೆಗಾಗಿಯೊ ವಿಸಲಾಗಿಟ್ಟು ಸರ್ವತೋಮುಖ ಅಭಿವೃದ್ಧಿಪಡೆಯಲು ಹವಣಿಸುತ್ತಿದ್ದರು. ಆದರೂ ಮಾನವನಾಗಿ ಜನ್ಮವೆತ್ತಿದ ಬಳಿಕ ಸರ್ವವಿಧದಲ್ಲೂ ಪರಿಪೂರ್ಣತೆಯನ್ನು ಗಳಿಸುವುದು ಅಷ್ಟು ಸುಲಭವಲ್ಲ. ಆದಿಮಾನವರೂ ಅದಕ್ಕೆ ಹೊರತಲ್ಲ. ಅವರಲ್ಲೂ ಪ್ರಾಯಶಃ ಆಗೊಮ್ಮೆ ಈಗೊಮ್ಮೆ ಸಣ್ಣ ಪುಟ್ಟ ಕಲಹಗಳು ನಡೆಯುತ್ತಿದ್ದುವು. ಆದರೆ ಅವು ಸೌಮ್ಯವಾದ ರೀತಿಯಲ್ಲಿ ನಡೆಯುತ್ತಿದ್ದು ಮಾನವತ್ವದ ಎಲ್ಲೆಯನ್ನು ವಿೂರಿಹೋಗಿರಲಿಲ್ಲ. ಶತ್ರುಗಳಿಂದ ರಕ್ಷಣೆಪಡೆಯುವುದಕ್ಕಾಗಿ (ಕೆಲವೊಮ್ಮೆ ಸ್ವಾರ್ಥ ಸಾಧನೆಗಾಗಿಯೂ ಬಳಸಲು) ಅವರಲ್ಲಿ ಯುಕ್ತ ಉಪಕರಣಗಳಿದ್ದುವು. ಅವನ್ನು ತಕ್ಕಂತೆ ಬಳಸುವ ಕಲೆಯೂ ಅವರಿಗೆ ಸಿದ್ಧಿಸಿತ್ತು. ಇವೆಲ್ಲವುಗಳ ಪರಿಣಾಮವಾಗಿ ಆ ಜನರಲ್ಲಿ ವಿಶಿಷ್ಟವಾದ ವ್ಯಕ್ತಿತ್ವವೊಂದು ನೆಲೆನಿಂತಿತ್ತು. ವಿದ್ಯೆಯ ಗಂಧಗಾಳಿ ಇಲ್ಲದಿದ್ದರೂ ಅವರು ಸರಸ್ವತಿಯ ಕೃಪೆಗೆ ಒಳಗಾಗಿದ್ದರು. ಸುಖದ ಸುಪ್ಪತ್ತಿಗೆ ಕಾಣದಿದ್ದರೂ ಅವರು ಸಿರಿದೇವಿಯ ಒಲುಮೆಗೆ ಒಳಗಾಗಿದ್ದರು. ಕಲೆಯ ನೆಲೆಯನ್ನೇ ಅರಿಯದಿದ್ದರೂ ಕಲಾದೇವಿಯ ಕರುಣೆಗೆ ಪಾತ್ರರಾಗಿದ್ದರು. ಇವರೆಲ್ಲರ ಸಂಗಮವನ್ನು ಕಂಡ ಕೀರ್ತಿವಧು ತಾನಾಗಿಯೇ ಅವರಲ್ಲಿ ಒಲಿದು ಬಂದಿದ್ದಳು! ಈ ಸಮಾಗಮವನ್ನು ಈಕ್ಷಿಸಿ, ನಾಗರಿಕತೆ ಮತ್ತು ಸಂಸ್ಕೃತಿಗಳು ಸಂತೃಪ್ತಿಯ ಹೊನಹಲನ್ನು ಹರಿಯಿಸಲೋ ಎಂಬಂತೆ ಅವರಿಗರಿವಿಲ್ಲದೆಯೇ, ಅವರ ಜೀವನದಲ್ಲಿ ಹಾಸುಹೊಕ್ಕಾಗಿ ಸೇರಿಕೊಂಡು ಬಿಟ್ಟಿದ್ದುವು. ತತ್ಫಲವಾಗಿ ಅಂದಿನ ಜೀವನವು ಒಂದು ಮಾದರಿಪ್ರಾಯವಾದ ಆದರ್ಶ ಜೀವನ ಎನಿಸಿತ್ತು. ಸಂಸ್ಕೃತಿ, ನಾಗರಿಕತೆಗಳು ಅಭಿವೃದ್ಧಿಯ ಸೋಪಾನವನ್ನೇರಲು ನಾ ಮುಂದು, ತಾ ಮುಂದು ಎಂದು ಬಡಿದಾಡಿಕೊಂಡವೋ ಎಂಬಂತೆ, ಮಾನವನೂ ತನ್ನ ಜೀವನ ಕ್ರಮದಲ್ಲಿ ನವೀನತೆಯನ್ನು ಅನುಕರಿಸಿಕೊಂಡು ಬಾಳನೌಕೆಯನ್ನು ಆವ ಸೆಲೆಗೊ ಸಿಲುಕಗೊಡದೆ ಜೀವನಾಂಬುಧಿಯನ್ನು ಸುಗಮವಾಗಿ ಈಸುವ ಮಹತ್ಕಾರ್ಯದಲ್ಲಿ ಪ್ರವೃತ್ತನಾಗಿದ್ದನು.

ಕಾಲವು ಬದಲಾದಂತೆ ಮಾನವನ ಮನೋಮಟ್ಟವು ಕಾಲಕ್ಕೆ ತಕ್ಕಂತೆ ಬದಲಾಗುವುದು ಸಹಜ. ಇಂದೀಗ ನಾವು ನಮ್ಮ ಹಳೆಯ ಸಂಪ್ರದಾಯಗಳನ್ನು ಮರೆತು ಹೊಸಯುಗದಲ್ಲಿ ಕಾಲಿಕ್ಕುತ್ತಿದ್ದೇವೆ. ಹಳೆಯದಕ್ಕಿಂತ ತೀರಾ ಭಿನ್ನವಾಗಿರುವ ಈ ಜಗತ್ತಿನಲ್ಲಿ ಎಲ್ಲವೂ ಹೊಸತು, ಎಲ್ಲವೂ ನವೀನ. "ಕಾಲಕ್ಕೆ ತಕ್ಕಂತೆ ಕೋಲ" ಎಂಬ ನಾಣ್ನುಡಿಗೆ ಪ್ರಾಶಸ್ತ್ಯವನ್ನಿತ್ತು ಅಂತೆಯೇ ವರ್ತಿಸುತ್ತಿರುವ ಇಂದಿನ ಜನಾಂಗದಲ್ಲಿ ದಿನದಿನವೂ ಬದಲಾವಣೆಗಳ ತಿಕ್ಕಾಟ ನಡೆದೇ ಇದೆ. ಇಂದು ರೂಢಿಯಲ್ಲಿದ್ದುದು ನಾಳೆ ಇಲ್ಲವೇ ಇಲ್ಲ. ಒಮ್ಮೆ ಕಾಣಬರುವ ವಿಷಯಗಳು ಇನ್ನೊಮ್ಮೆ ಕಾಣವು. ಈ ರೀತಿಯಲ್ಲಿ ಅತಿ ಶೀಘ್ರವಾಗಿ ಬದಲಾವಣೆಗೊಳ್ಳುತ್ತಿರುವ ಈ ಶತಮಾನದಲ್ಲಿ ಜೀವನ ನಡೆಸುವ ಮಾನವನೂ ಆ ಬದಲಾವಣೆಗಳಿಗೆ ತಕ್ಕಂತೆ ತನ್ನ ಜೀವನವನ್ನು ರೂಪಿಸಿಕೊಳ್ಳಲು ಪ್ರಯತ್ನಿಸುತ್ತಿದ್ದಾನೆ. ಆದರೆ ಅದಕ್ಕಾಗಿ ಅವನು ಪಡುವ ಪಾಡು ಹೇಳಿತೀರದು. ಸಂದರ್ಭಕ್ಕೆ ತಕ್ಕಂತೆ ವರ್ತಿಸಿಕೊಂಡು ಸಮಾಜದಲ್ಲಿ ಗಣ್ಯವ್ಯಕ್ತಿಗಳೆಂಬ ಬಿರುದನ್ನು ಪಡೆಯಲು ಹಂಬಲಿಸುವವರ ಪಾಳಿ ಒಂದೆಡೆಯಾದರೆ, ಹೊಟ್ಟೆಗೆ ಹಿಟ್ಟಿಲ್ಲದಿದ್ದರೂ ಬಡತನವ ಮರೆಸಿ ಸಿರಿವಂತಿಕೆಯ ಪ್ರದರ್ಶನಗೈದು ಮೆರೆವವರ ಆವಳಿ ಇನ್ನೊಂದೆಡೆ. ಇವರ ಹಾವಳಿಯಿಂದ ದೂರವಿದ್ದು ಮರ್ಯಾದೆ, ಘನತೆಯ ಜೀವನ ನಡೆಯಿಸಲು ಹಾತೊರೆಯುವವರ ಹಂಬಲ ಮಗದೊಂದೆಡೆ! ವಿದ್ಯೆಯ ಗಂಧಗಾಳಿಯಿಲ್ಲದೆ, ವಿದ್ಯಾವಂತರೆನಿಸಿಕೊಳ್ಳಬಯಸುವವರು ಹಲವರಾದರೆ ಇನ್ನು ಕೆಲವರು ಅಪಾರ ವಿದ್ಯೆಗಳಿಸಿಯೂ ವೃಥಾ ಹುದ್ದೆಗಾಗಿ ಹಾತೊರೆಯುತ್ತಿರುವರು. ಇವೆಲ್ಲವುಗಳ ಪರಿಣಾಮವಾಗಿ ಅನೇಕ ಸಮಸ್ಯೆಗಳು ತಲೆದೋರಿವೆ. ಈ ಸಮಸ್ಯೆಗಳ ವಿರುದ್ಧ ಹೋರಾಡ ಬಯಸುವವರು ಹಲವರು. ಆದರೆ ಆ ಸಮಸ್ಯೆಗಳನ್ನು ಪುನರುಜ್ಜೀವನಗೊಳಿಸಲು ಬಯಸುವವರು ಇನ್ನು ಹಲವರು. ಈ ರೀತಿ ನಾನಾರೀತಿಯ ವಿಚಿತ್ರ ಜನರ ನಡುವೆ ಸಿಲುಕಿದ "ಭೂದೇವಿ" ಪಡುವ ಪಾಡು ಯಾರಿಗೆ ಗೊತ್ತಿದೆ? "ಇಂತಹ ವಿಲಕ್ಷಣ ಪ್ರವೃತ್ತಿಯ ಮನುಜರಿಗೆ ಯಾಕಾದರೂ ಆಶ್ರಯವಿತ್ತೆನೋ" ಎಂಬುದಾಗಿ ಆಕೆ ಕಣ್ಮರೆಯಲ್ಲಿದ್ದು ಕಣ್ಣೀರಕರೆಯುತ್ತಿರಬಹುದು! ಆದರೇನು? ಪ್ರತ್ಯಕ್ಷವಾಗಿ ಕಣ್ಣ ಮುಂದಿರುವ ಮಾತೆಯ ಕಣ್ಣೀರನ್ನು ಒರಸದ ಕೈಗಳು ಪರೋಕ್ಷವಾಗಿ ಗೋಳಿಡುವ ಮಾತೆಯನ್ನು ಸಂತೈಸುವುದು ಸಾಧ್ಯವೇ?

ಇದು ಆಧುನಿಕ ಯುಗ ಹೌದು. ಜತೆಗೆ "ವೈಜ್ಞಾನಿಕ ಯುಗ" ಎಂದೂ ಪ್ರಸಿದ್ಧಿ ಪಡೆದಿದೆ. ವಿಜ್ಞಾನದ ವಿಷಯದಲ್ಲಿ ಇಂದಿನ ಮಾನವನು ಪಡೆದಿರುವ ಜ್ಞಾನ ಅಪಾರ. ಅಗಮ್ಯ. ನಾವಿಂದು ನಮ್ಮ ಜೀವನವನ್ನು ಸುಖಮಯವಾದ ರೀತಿಯಲ್ಲಿ ನಡೆಸಲು ಸಮರ್ಥರಾಗಿದ್ದೇವೆ ಎಂದಾದರೆ ಅದು ವಿಜ್ಞಾನದ ಪ್ರಗತಿಯ ಸಂಕೇತ. ಅಜ್ಞಾನವನ್ನು ತೊಲಗಿಸುವುದಕ್ಕಾಗಿ ಪಣತೊಟ್ಟ ಈ ವಿಜ್ಞಾನ ಅನೇಕ ವಿಜ್ಞಾನಿಗಳ ಅಭ್ಯುದಯಕ್ಕೆ ಕಾರಣವಾಗಿದೆ. ಇದರ ಫಲವಾಗಿಯೇ ದಿನೇ ದಿನೇ ನವನವೀನ ಯಂತ್ರೋಪಕರಣಗಳು ಬಳಕೆಗೆ ಬರುತ್ತಿವೆ. ಮಾನವನಿಂದು ಹಕ್ಕಿಯಂತೆ ಆಗಸದಲ್ಲಿ ಹಾರಬಲ್ಲನಾದರೆ, ವಿೂನಿನಂತೆ ನೀರಿನಲ್ಲಿ ಈಜಬಲ್ಲನಾದರೆ ಅದು ವಿಜ್ಞಾನದ ಹೆಮ್ಮೆಯ ಕೊಡುಗೆ! ಮಾನವನ ಜೀವನವನ್ನು ಆದಷ್ಟು ವಿಲಾಸಮಯವಾಗಿ ಪರಿವರ್ತಿಸಲು ವಿಜ್ಞಾನವಿತ್ತ ಸೌಲಭ್ಯಗಳು ಅಪಾರ. ವಿಜ್ಞಾನವೀಗ ಎಷ್ಟು ಮುನ್ನಡೆದಿದೆ ಎಂದರೆ—ಹಿಂದೆ ದ್ವಾಪರಯುಗದಲ್ಲಿ ಕೃಷ್ಣನನ್ನು ಸಂತೈಸುವ ಸಂದರ್ಭದಲ್ಲಿ ಯಶೋದೆಯ ಕೈಗೂ ಸಿಲುಕದ ಚಂದ್ರಮ, ಇಂದು ಈ ಕಲಿಯುಗದಲ್ಲಿ ನಮ್ಮ ವಿಜ್ಞಾನಿಗಳ ಕೈಗೆ ನಿರಾಯಾಸವಾಗಿ ಸಿಕ್ಕಿಬಿಟ್ಟಿದ್ದಾನೆ!! ಚಂದ್ರನೊಂದಿಗೆ ಸಮಾಲೋಚನೆ ಗೈಯಬಲ್ಲ ಅತ್ಯದ್ಭುತಶಕ್ತಿ ವಿಜ್ಞಾನ ಪಾಲಿಸಿದೆ. ಆದರೇನು?..... ಈ ವಿಜ್ಞಾನದಿಂದಾಗುವ ಹಾನಿಯನ್ನು ಗಮನಿಸಿದಾಗ ಅದರ ಪ್ರಯೋಜನಗಳು ಒಂದೂ ಗಮನಕ್ಕೆ ಬಾರವು. ವಿಜ್ಞಾನದ ಸಾಧನಗಳಿಂದ ಎಷ್ಟು ಪ್ರಯೋಜನ ವಿದೆಯೋ ಅದರ ಇಮ್ಮಡಿಯಷ್ಟು ಹಾನಿಯನ್ನು ಕಾಣುತ್ತೇವೆ. ಬ್ರಹ್ಮ ಮುನಿದರೆ ಪ್ರಳಯವನ್ನೇ ತಂದೊಡ್ಡಬಲ್ಲನಂತೆ. ಆದರೂ ಆಗ ಆತನ ಭಕ್ತರನ್ನು ಸಂರಕ್ಷಿಸಲು ಆತ ಮರೆಯುವುದಿಲ್ಲ. ಆದರೆ ವಿಜ್ಞಾನ [ನಿ] ಮುನಿದರೆ.....? ಕ್ಷಣದಲ್ಲೇ ಈ ಜಗತ್ತನ್ನು ನಾಶಮಾಡಬಲ್ಲ ಶಕ್ತಿ ಅದಕ್ಕಿದೆ. ಆಗ ಯಾರ ಉಳಿವು ಅಳಿವುಗಳ ಪ್ರಶ್ನೆ ಬಾರದು. ಈ ರೀತಿಯಲ್ಲಿ ಬ್ರಹ್ಮನ ಸೃಷ್ಟಿಕಾರ್ಯವನ್ನೇ ನಿಮಿಷಾರ್ಧದಲ್ಲಿ ಮಣ್ಣುಗೂಡಿಸಬಲ್ಲ ಅದ್ಭುತ ಧೈರ್ಯ ಸಾಹಸ ವಿಜ್ಞಾನದ ಪಾಲಿಗಿದೆ, ಎಂದರೆ ಅದೊಂದು ಹೆಮ್ಮೆಯ ವಿಷಯ ಎನಿಸೀತೇ? ಆದಿಮಾನವರು ತಮ್ಮ ಬಿಲ್ಲುಬಾಣಗಳನ್ನುಪಯೋಗಿಸಿ ಶತ್ರುಗಳ ವಿರುದ್ಧ ಹೋರಾಟ ನಡೆಸಿ, ವನ್ಯಜಂತುಗಳನ್ನು ಸಂಹರಿಸಿದ್ದರೆ, ಇಂದಿನ ಆಧುನಿಕ ಮಾನವರು ತಮ್ಮ ವೈಜ್ಞಾನಿಕ ಸಲಕರಣೆ

ಗಳ ಸಹಾಯದಿಂದ ಮೃಗಗಳನ್ನೇ ಏಕೆ, ಮನುಷ್ಯರನ್ನೇ ಕೊಲ್ಲುವ ಹೇಯಕೃತ್ಯಕ್ಕೂ ಹಿಂಜರಿಯದವರಾಗಿದ್ದಾರೆ. ಒಮ್ಮೆಗೆ ಸ್ಫೋಟನ ಗೊಳಿಸಿದ ಅತಿಚಿಕ್ಕ ಅಣುವಿನ ಮೂಲಕ ಲಕ್ಷೋಪಲಕ್ಷ ಜನರನ್ನು ಅದೇಕೆ ದೊಡ್ಡ ದೊಡ್ಡ ದೇಶಗಳನ್ನೇ ನಾಶಮಾಡ ಹೊರಟಿದ್ದಾರೆ. ಇಂತಹ ರೌದ್ರ ಅವತಾರವನ್ನು ತಳೆದು "ವಸುಂಧರಾದೇವಿ"ಯ ಕೊಲೆಗೈಯಲು ಹೊರಟಿರುವ ಈ ಆಧುನಿಕ ವಿಜ್ಞಾನಿಗಿಂತಲೂ ಹಿಂದಿನ ಅಜ್ಞಾನಯೇ ಲೇಸು ಎಂದು ತಿಳಿದು ನಾಗರಿಕತೆ ಮತ್ತು ಸಂಸ್ಕೃತಿಗಳು ಆಧುನಿಕ ಮಾನವನ ಸಹವಾಸವನ್ನೇ ಬಿಟ್ಟು ಓಡುತ್ತಿರುವಂತೆ ಭಾಸವಾಗುತ್ತಿದೆ. ಅರ್ಥಾತ್ ನಾಗರಿಕತೆ ಮತ್ತು ಸಂಸ್ಕೃತಿಗಳು ಇಂದಿನ ಮಾನವ ಜನಾಂಗದಲ್ಲಿ ಕುಂಠಿತಗೊಳ್ಳುತ್ತಿವೆಯೇ ಹೊರತು ಅಭಿವೃದ್ಧಿಹೊಂದುತ್ತಿಲ್ಲ ಎಂಬುದು ಸ್ಪಷ್ಟವಾಗಿ ಗೋಚರವಾಗುತ್ತಿದೆ. ಇದೆನ್ನೆಲ್ಲ ಅರಿತೂ ಇಂದಿನ ಧುರೀಣರು, "ನಮ್ಮ ನಾಗರಿಕತೆ, ಸಂಸ್ಕೃತಿಗಳು ಉಚ್ಚಮಟ್ಟದಲ್ಲಿವೆ" ಎಂದು ಎಷ್ಟೇ ಘಂಟಾಘೋಷವಾಗಿ ನುಡಿದರೂ ವ್ಯರ್ಥವೇ ಸರಿ. ನಮ್ಮ ದೃಷ್ಟಿಯನ್ನು ಸ್ತ್ರೀ ಜನಾಂಗದೆಡೆ ಹಾಯಿಸಿದರೆ, ಇಂದಿನ ಸ್ತ್ರೀಯರು ವಿದ್ಯಾವಂತರಾಗಿದ್ದು, ಸ್ವತಂತ್ರಜೀವನ ನಡೆಯಿಸುತ್ತಿರುವುದನ್ನು ಕಾಣಬಹುದು. ಆದರೆ.....ಹಿಂದಿನ ಸ್ತ್ರೀಯರಲ್ಲಿದ್ದ ಆ ಘನತೆ ಗಾಂಭೀರ್ಯ, ಆದರ್ಶಜೀವನ ಇಂದು ಶೂನ್ಯವಾಗಿದೆ. ಹಿಂದಿನ ನಾರಿಯರು ಮನೆಯಲ್ಲೇ ಜಗತ್ತನ್ನು ಕಂಡಿದ್ದರೆ, ಇಂದಿನ ನಾರಿಮಣಿಗಳು ಜಗತ್ತನ್ನೇ ಮನೆಯೆಂದು ತಿಳಿದುಕೊಂಡಂತಿದೆ. ಇದನ್ನೆಲ್ಲ ಇಂದಿನ ಜನರು ನಾಗರಿಕತೆ ಎಂದು ಕರೆದರೆ ಅದು ಕೇವಲ ಹುಚ್ಚು ಭಾವನೆ. ಇವೆಲ್ಲ ನಾಗರಿಕತೆಯ ಹೆಸರಿನಲ್ಲಿ, ತೆರೆಯ ಮರೆಯಲ್ಲಿ ನಡೆಯುವಂತಹ ಕಪಟ ಸನ್ನಿವೇಶಗಳಷ್ಟೇ ಹೊರತು ನಿಜವಲ್ಲ. ಏಕೆಂದರೆ ನಾವಿಂದು ಯಾವುದೇ ಒಂದು ಕ್ಷೇತ್ರವನ್ನು ಸರಿಯಾಗಿ ವೀಕ್ಷಿಸಿದರೂ ನಮಗಲ್ಲಿ ಉಂಟಾದ ಅಭಿವೃದ್ಧಿ ತೋರುವುದಿಲ್ಲ. ಹೆಚ್ಚೇಕೆ ನಮ್ಮ ಹಿರಿಯರಾದ ರಾಜಗೋಪಾಲಾಚಾರಿಯವರೇ ಹೇಳಿದ್ದಾರೆ: ಇಂದಿನ ಮಾನವನು ಹಿಂದಿನ ಮಾನವನಿಗಿಂತ ಮೇಲಕ್ಕೇರಿದ್ದಾನೆ ಎಂಬುದರಲ್ಲಿ ಸಂದೇಹವಿಲ್ಲ. ಆದರೆ ಅವರು ಮೇಲಕ್ಕೇರಿರುವುದು ಕೇವಲ ಎರಡು ಅಡಿಗಳಷ್ಟು ಮಾತ್ರ [?] ಎಂದು ಈ ಮಾತಿನ ಒಳಅರ್ಥವನ್ನು ಅರಿತುಕೊಂಡರೆ ಅದರಲ್ಲಿಡಕವಾಗಿರುವ ಸ್ವಾರಸ್ಯದ ಅರಿವಾಗುವುದು. ಹಿಂದಿನ ಮಾನವನು ನೆಲದ ಮೇಲೆ ಪವಡಿಸಿ ತನ್ನ ನಿತ್ಯಕರ್ಮಗಳನ್ನು ಪೂರೈಯಿಸುತ್ತಿದ್ದರೆ ಇಂದಿನ ಆಧುನಿಕ ಮಾನವನು ತನ್ನೆಲ್ಲ ಕಾರ್ಯಗಳಿಗೂ ಕುರ್ಚಿಮೇಜುಗಳನ್ನೇ ಬಳಸುತ್ತಾನೆ. ಅರ್ಥಾತ್ ಹಿಂದಿನವರು ನೆಲದ ಮೇಲೆ ಕುಳಿತು ಊಟಬಲ್ಲರಾದರೆ ಇಂದಿನವರಿಗೆ ಮೇಜಿನ ಮೇಲೆಯೇ ಆಗಬೇಕು. ಹಾಗಿದ್ದರೆ ಹಿಂದಿನ ಮಾನವನಿಗೂ ಇಂದಿನ ಮಾನವನಿಗೂ ಇರುವ ಅಂತರ ನೆಲ ಹಾಗೂ ಮೇಜು (ಸಾಧಾರಣ ೨') ಗಳ ನಡುವಣ ಅಂತರದಷ್ಟು. ಈ ಮಾತು ಎಷ್ಟು ಸ್ವಾರಸ್ಯವಾಗಿದೆಯೋ ಅಷ್ಟೇ ಅರ್ಥಗರ್ಭಿತವಾಗಿದೆ. ನಾವಿಂದು ಮುಂದುವರಿದಿರುವುದು ಬಾಹ್ಯಾಡಂಬರ ಪ್ರದರ್ಶನದಲ್ಲಿ ಮಾತ್ರ. ಆದರೆ ನಮ್ಮಲ್ಲಿ ನಿಜವಾದ ಜ್ಞಾನದ ಉದಯ ಇನ್ನೂ ಆಗಿಲ್ಲ. ನಿಜವಾದ ಜ್ಞಾನದ ಸವಿಯನ್ನುಂಡ ಆವ ಮನುಷ್ಯನೂ ಇಂದಿನ ಜನಾಂಗದ ಕುರಿತು ವಿಮರ್ಶಿಸುವಂತಿದ್ದರೆ ಆತನಿಂದ "ಆಧುನಿಕ ಜಗತ್ತಿನಲ್ಲಿ ಮಾನವನ ಸಂಸ್ಕೃತಿ ನಾಗರಿಕತೆಗಳು ಎಳ್ಳಷ್ಟು ಅಭಿವೃದ್ಧಿಹೊಂದಿಲ್ಲ" ಎಂಬ ಮಾತು ನಿರರ್ಗಳವಾಗಿ ನಿರಾಯಾಸವಾಗಿ ಹೊರಬರುತ್ತಿತ್ತೆನೋ! ಆದರೆ ಇನ್ನಾದರೂ ಜನರು ವಿವೇಕಶಾಲಿಗಳಾಗಿ ವರ್ತಿಸಿದಲ್ಲಿ, ಮುಂಬರುವ ಅತ್ಯಾಧುನಿಕ ಜಗತ್ತಿನಲ್ಲಾದರೂ ಮಾನವನ ನಾಗರಿಕತೆ ಸಂಸ್ಕೃತಿಗಳು ಉನ್ನತಿಯ ಸೋಪಾನದ ತತ್ತ್ತುದಿಗೇರುವುದರಲ್ಲಿ ಸಂದೇಹವಿಲ್ಲ.

ಸ್ವಾಮಿ ವಿವೇಕಾನಂದ ಶಕ್ತಿ - ಸಂದೇಶ

KAMAKSHI KAMATH AMMEMBAL, *III B.Sc.*

ಅಧೋಗತಿಗೆ ಇಳಿದ ಭರತಖಂಡವನ್ನು ಪುನಃ ಜಗತ್ತಿನ ಗೌರವಕ್ಕೆ ಪಾತ್ರವಾದ ಸಿಂಹಾಸನಕ್ಕೇರಿಸಬೇಕಾದರೆ ಅದು ಮಹಾ ಬಲಿದಾನನಿಂದಲೇ ಸಾಧ್ಯ. ಭಾರತದ ಗೌರವವು ಸಂಪೂರ್ಣವಾಗಿ ಅದರ ಸಂಸ್ಕೃತಿಯನ್ನು ಅವಲಂಭಿಸಿದೆ. ಅನೇಕ ಶತಮಾನಗಳಿಂದಲೂ ನಾನಾ ವಿಧದ ಕುಂದು ಕೊರತೆಗಳ ಬಂಧನದಲ್ಲಿದ್ದರೂ ಇಂದಿಗೂ ನಮ್ಮ ಜನರಲ್ಲಿ ಹಿಂದಿನ ಆದರ್ಶಗಳು ಅಚ್ಚಳಿಯದೆ ಉಳಿದಿವೆ.

ಪ್ರತಿಯೊಬ್ಬರ ಜೀವನದಲ್ಲಿಯೂ ಅವರು ಸಾಧಿಸಿದ ಒಂದೊಂದು ವಿಜಯದ ಹಿಂದೆಯೂ ಅಸಾಧ್ಯ ಕಷ್ಟವಿದ್ದೇ ಇರುತ್ತದೆ. ಅದರಲ್ಲೂ ಹಿಂದೂದೇಶದಲ್ಲಿ ಒಂದು ಉತ್ತಮ ಕೆಲಸ ಮಾಡಬೇಕಾದರೆ ಅದಕ್ಕೆ ಅಡಚಣೆಗಳು ಬಹಳ. ಇಂದಿನ ಭಾರತಕ್ಕೂ ಒಂದು ಶತಮಾನದ ಹಿಂದಿನ ಭಾರತಕ್ಕೂ ಅಂತರ ಬಹಳ. ಒಂದು ಶತಮಾನದ ಹಿಂದೆ ಹಿಂದುಗಳಲ್ಲಿ ಮೂಡಿದ್ದ ಮೂಢ ನಂಬಿಕೆ, ಜಾತಿಭೇದ, ಕಟುವಾದ ಆಚಾರ ವ್ಯವಹಾರಗಳನ್ನು ಎದುರಿಸಿ, ಜನರಲ್ಲಿ ಆದರ್ಶ ಭಾವನೆಗಳನ್ನು ಮೂಡಿಸುವುದು ಸಾಮಾನ್ಯ ಕೆಲಸವೇನೂ ಆಗಿರಲಿಲ್ಲ. ಈ ಅನೇಕ ತೊಂದರೆಗಳ ನಡುವೆ ಭರತಖಂಡವನ್ನು ಜಾಗೃತಗೊಳಿಸಲು ಪ್ರಯತ್ನಿಸಿದವರಲ್ಲಿ ಸ್ವಾಮಿ ವಿವೇಕಾನಂದರು ಒಬ್ಬರು

ಸ್ವಾಮಿ ವಿವೇಕಾನಂದರ ಜೀವನವು ಕಾರ್ಮುಗಿಲಿನಿಂದ ಆವೃತವಾಗಿ ಗುಡುಗು ಮಿಂಚುಗಳನ್ನು ಕಾರುವ, ಪ್ರಚಂಡ ಮುಂಗಾರಿನ ಆಕಾಶದಂತಿತ್ತು. ಬೀಜ ಒಳ್ಳೆಯದಾದರೂ, ಸಕಾಲಕ್ಕೆ ಮಳೆ ಇಲ್ಲದೆ, ಗೊಬ್ಬರವಿಲ್ಲದೆ ಬೆಳೆದ ಗಿಡದಂತಿದ್ದರೂ ಅವರು ಕೊನೆಯಲ್ಲಿ ಹಿಂದೂ ಸಂಸ್ಕೃತಿಗೆ ಅಮೃತ ಫಲವನ್ನೇ ಕೊಟ್ಟು ಹೋದರು. ಅವರು ತಮ್ಮಲ್ಲಿದ್ದ ದೃಢ ವಿಶ್ವಾಸದಿಂದಲೇ ಹಿಂದೂದೇಶದ ಕೀರ್ತಿಯನ್ನು ಪ್ರಪಂಚದಲ್ಲಿ ಹರಡಿ ಬಂದರು. ಸುಮಸ್ಯೆಗಳಿಗೆ, ಸಂಕಷ್ಟಗಳಿಗೆ ಭೀತರಾಗಿ ತಲೆಯೊಡ್ಡಿದರೆ ನಾವು ಅಳಿದು ಹೋದೇವು. ಬದಲಾಗಿ ಅವುಗಳನ್ನು ನಿರ್ಭಯರಾಗಿ ಎದುರಿಸಿದರೆ ನಾವು ಜಯಶಾಲಿಗಳಾಗುವುದು ಖಂಡಿತ ಎಂದು ಅವರು ನಂಬಿದ್ದರು. ಮನಸ್ಸಿನ ಏಕಾಗ್ರತೆಯೇ ಎಲ್ಲ ಜ್ಞಾನಗಳ ಮೂಲ. ಆತ್ಮಶ್ರದ್ಧೆ, ಆತ್ಮವಿಶ್ವಾಸವನ್ನು ಪರಿಗ್ರಹಿಸಿ ಬಾಳುವುದರಲ್ಲಿ ಜೀವನದ ಸಂಪೂರ್ಣ ಅರ್ಥವಿದೆ, ಎಂಬು

ದನ್ನು ಅವರ ಜೀವನದ ಕನ್ನಡಿಯಲ್ಲಿ ಸ್ಪಷ್ಟವಾಗಿ ಕಾಣಬಹುದು.

ಸ್ವಾಮಿ ವಿವೇಕಾನಂದರ ಜೀವನವೇನೂ ಸುಖದ ಸುಪ್ಪತ್ತಿಗೆಯಾಗಿರಲಿಲ್ಲ. ದೇಶದ ಕರೆಗೆ ಓಗೊಟ್ಟು ಮುನ್ನುಗ್ಗಿದಾಗ ಅವರನ್ನು ವಿರೋಧಿಸಿದ ಜನ ಬಹಳ. ಉಳಿದವರಲ್ಲಿ ಸಹಾಯ ಕೊಟ್ಟವರು ಅತ್ಯಲ್ಪ. ಅವರೂ ಅವರ ಗೆಳೆಯರೂ ಬಹಳ ಕಷ್ಟಗಳನ್ನು ಅನುಭವಿಸಬೇಕಾಯಿತು. ಆದರೆ ಅವರೆಂದೂ ಹಿಂಜರಿಯಲಿಲ್ಲ. ಸುಖದಲ್ಲಿರುವಾಗ, ದುಃಖದಲ್ಲಿರುವಾಗ, ಬಡತನದಲ್ಲಿ, ನೋವಿನಲ್ಲಿ, ಸಾವಿನಲ್ಲಿ, ಸ್ವರ್ಗದಲ್ಲಿ, ನರಕದಲ್ಲಿ ಯಾರು ಕೈ ಬಿಡುವುದಿಲ್ಲವೋ ಅವರು ನಿಜವಾದ ಸ್ನೇಹಿತರು. ಅಂತಹ ಸ್ನೇಹವು ಸುಲಭವೇ? ಬಡತನವಿದ್ದು ಹಸಿವಿನಿಂದ ನರಳಬೇಕಾದರೂ ಈ ಗೆಳೆಯರ ತಂಡದಲ್ಲಿ ಸ್ನೇಹ, ಶ್ರದ್ಧೆ, ಶಕ್ತಿ, ಪ್ರೀತಿಗಳಿಗೆ ಬರಗಾಲವಿರಲಿಲ್ಲ. ಇದೇ ಅವರನ್ನು ಕಷ್ಟಕಾಲದಲ್ಲಿ ಹಿಮಾಲಯದಿಂದ ಕನ್ಯಾಕುಮಾರಿಯ ವರೆಗೆ, ಸಿಂಧೂ ನದಿಯಿಂದ ಬ್ರಹ್ಮಪುತ್ರದ ವರೆಗೆ ಹೋಗುವಂತೆ ಪ್ರೇರೆಪಿಸಿತು.

ನಿಜವಾದ ವೈಭವ ಕಾದಿರುವುದು ಬಾಂಬು ಎಸೆಯುವವನಿಗೆ ಅಲ್ಲ. ನಿಜವಾದ ವೈಭವ ಕಾದಿರುವುದು "ನನ್ನಲ್ಲಿ ಭಗವಂತನನ್ನು ಬಿಟ್ಟು ಬೇರೆನೂ ಇಲ್ಲ" ಎಂದು ಎದ್ದು ನಿಂತು ಘೋಷಿಸುವವನಿಗೆ. ಹಾಗೆ ಹೇಳಬಲ್ಲ ಹೆಣ್ಣಾಗಲೀ ಗಂಡಾಗಲೀ ಪ್ರಬಲವಾದ ಶಕ್ತಿಯಿಂದ ಮುನ್ನುಗ್ಗಲ್ಪಟ್ಟು ಒಂದು ರಾಷ್ಟ್ರದ ನಾಯಕರಾಗಬಹುದು. ಆ ದೇಶದ ಅತ್ಯಂತ ಪ್ರಬಲ ಗುಣಗಳನ್ನು ಆ ವ್ಯಕ್ತಿಯು ಹೊರಗೆಳೆದು ತೋರಿಸಬಲ್ಲುದು. 'ನನ್ನಷ್ಟಕ್ಕೆ ಮಾತನಾಡುವುದಾದರೆ ನಾನು ಕೈಗೊಂಡಿರುವ ಈ ಮಹೋದ್ಯಮಕ್ಕಾಗಿ ಇನ್ನೂರು ಸಲ ಬೇಕಾದರೂ ಜನ್ಮ ತಳೆಯಲು ನಾನು ಸಿದ್ಧನಿದ್ದೇನೆ. ನನ್ನ ಆದರ್ಶ ಏನು ಎಂಬುದನ್ನು ಕೆಲವೇ ಮಾತುಗಳಲ್ಲಿ ಹೇಳಬಲ್ಲೆ. ಅದಿಷ್ಟೆ–ಮಾನವತೆಗೆ ಅವರಲ್ಲಿರುವ ದೈವತ್ವವನ್ನು ಕುರಿತು ಬೋಧಿಸುವುದು. ಅವರ ಬದುಕಿನ ಪ್ರತಿಯೊಂದು ಕ್ರಿಯೆಯಲ್ಲಿಯೂ ಆ ದೈವತ್ವ ಹೇಗೆ ಪ್ರಕಾಶಿತವಾಗಬೇಕು ಎಂಬುದನ್ನು ಬೋಧಿಸುವುದು. ಈ ಜಗತ್ತು ಮೂಢ ನಂಬಿಕೆಗಳ ಸರಪಣಿಯಲ್ಲಿ ಸಿಕ್ಕಿಕೊಂಡಿದೆ, ದಲಿತರನ್ನು ನಾನು ಕನಿಕರಿಸುತ್ತೇನೆ. ಹಾಗೆಯೇ ತುಳಿಯುವವರ ಬಗೆಗೂ ಅವರು ಸ್ತ್ರೀಯರಾಗಲೀ ಪುರುಷರಾಗಲೀ ನನಗೆ ಅದಕ್ಕಿಂತ ಹೆಚ್ಚಿನ ಕನಿಕರವಿದೆ. ಈ ಜಗತ್ತಿಗೆ ಬೆಳಕನ್ನು ಕೊಡುವವರು ಯಾರು?–ತ್ಯಾಗ–ಹಿಂದಿನ ನಿಯಮ ಅದು. ಶತಮಾನಗಳ ವರೆಗೂ, ಮುಂದೆಯೂ ಅದೇ. ಜಗತ್ತಿನ ಅತ್ಯಂತ ಧೀರರೂ ಮಹಾತ್ಮರೂ ಬಹುಜನರ ಹಿತಕ್ಕಾಗಿ ತಮ್ಮನ್ನು ತಾವೇ ಬಲಿಕೊಟ್ಟುಕೊಳ್ಳಬೇಕು. ನಿನ್ನ ಕಾಲುಗಳ ಮೇಲೆ ನೀನು ನಿಲ್ಲಬೇಕು. ಯಾರ ರೆಕ್ಕೆಯ ನೆರಳಲ್ಲೂ ಅಲ್ಲ. ಶಾಶ್ವತ ಪ್ರೇಮ ಮತ್ತು ಕರುಣೆ ಇವುಗಳಿಗಾಗಿ ನಮಗೆ ನೂರಾರು ಜನ ಬುದ್ಧರು ಬೇಕಾಗಿದ್ದಾರೆ. ಜಗತ್ತಿನ ಮತಗಳು ಅರ್ಥವಿಲ್ಲದ ಅಣುಕುಗಳಾಗಿ ಕುಳಿತಿವೆ. ಜಗತ್ತಿಗೆ ಇಂದು ಬೇಕಾಗಿರುವುದು ಶೀಲ. ಯಾರ ಜೀವನ ಜ್ವಲಿಸುವ ನಿಸ್ವಾರ್ಥ ಪ್ರೇಮವಾಗಿದೆಯೋ ಅಂಥವರು ಜಗತ್ತಿಗೆ ಬೇಕಾಗಿದ್ದಾರೆ. ಅಂತಹ ಪ್ರೇಮದ ಪ್ರತಿಯೊಂದು ಮಾತು ಸಿಡಿಲಿನಂತೆ ಕೇಳುವಂತೆ ಮಾಡಬಲ್ಲುದು. ನಮಗೆ ಬೇಕಾಗಿರುವುದು ನಿರ್ಭಯವಾದ ಮಾತು ಮತ್ತು ನಿರ್ಭಯವಾದ ಕೃತಿ. ಜಗತ್ತು ದುಃಖದಲ್ಲಿ ಬೇಯುತ್ತಿದೆ. ನೀನು ಮಾತ್ರ ನಿದ್ರಿಸಬಲ್ಲೆಯೇನು? ನಿದ್ರಿಸುತ್ತಿರುವ ದೇವತೆಗಳು ಎದ್ದೇಳುವವರೆಗೆ ಕರೆಯುತ್ತಲೇ ಹೋಗೋಣ. ನಮ್ಮಲ್ಲಿರುವ ದೇವರು ಪ್ರತ್ಯುತ್ತರ ಕೊಡುವವರೆಗೂ ಕರೆಯುತ್ತಲೇ ಹೋಗೋಣ. ಬಹುಕಾಲ ನಾವು ಅತ್ತಿರುವೆವು. ಇನ್ನು ಅಳ ಕೂಡದು. ನಿಮ್ಮ ಕಾಲ ಮೇಲೆ ನಿಂತು ಮಾನವರಾಗಿ, ಧರ್ಮ, ಸಿದ್ಧಾಂತ, ವಿದ್ಯಾಭ್ಯಾಸಗಳೆಲ್ಲವೂ ನಮ್ಮನ್ನು ಪುರುಷ ಸಿಂಹರನ್ನಾಗಿ ಮಾಡುವಂತಹವಿರಲಿ. ಯಾವುದು ದೈಹಿಕವಾಗಿ, ಆಧ್ಯಾತ್ಮಿಕವಾಗಿ ಅಥವಾ ಮಾನಸಿಕವಾಗಿ ದುರ್ಬಲರನ್ನಾಗಿ ಮಾಡುವುದೋ ಅದನ್ನು ತ್ಯಜಿಸಿ." ಜೀವನದ ಹೋರಾಟದಲ್ಲಿ ಗೆಲ್ಲುವುದು ಅಂದರೆ ಜಗತ್ತಿನಲ್ಲಿ ಇತರರಿಗೆ ನೋವುಂಟು ಮಾಡದೆ, ನೀವೇ ನೋವು ಅನುಭವಿಸಿ ಬದುಕುವುದು ಹೇಗೆ ಎಂದು ಕಲಿಯುವುದು."

ಸ್ವಾಮಿ ವಿವೇಕಾನಂದರು ದೇಶಪ್ರೇಮಿಗಳಿಗೆ ಕೊಟ್ಟ ಶಕ್ತಿ-ಸಂದೇಶಗಳಿಂದ ನಮಗೆ ನಮ್ಮ ಕರ್ತವ್ಯದ ಅರಿವಾಗುವುದು. ಭಾರತದ ಬಡತನದ ಚಿತ್ರವು ಅವರ ಕಣ್ಣಿಗೆ ಕಟ್ಟಿದಂತೆ ಅವರ ಮನವನ್ನು ಮುಟ್ಟಿದಂತೆ ಇನ್ನಾರಿಗೂ ಆದದ್ದಿಲ್ಲ. "ನನ್ನ ಅಂತ್ಯದ ವರೆಗೆ ನಾನು ದೇಶಕ್ಕಾಗಿ ಹೋರಾಡುವೆನು. ನನ್ನ ನಂತರ ನನ್ನ ಆತ್ಮವು ನಿಮ್ಮೊಡನೆ ಕೆಲಸ ಮಾಡುವುದು. ಮೃತ್ಯುವಿಗೆ ಅಂಜಬೇಡಿರಿ. ಬದಲಾಗಿ ಮೃತ್ಯುವನ್ನು ಪ್ರೀತಿಸಿರಿ." "ಭಾರತದಲ್ಲಿ ಕಾಲಾನುಕಾಲಕ್ಕೆ ಸಹಸ್ರಾರು ವಿವೇಕಾನಂದರು ಹುಟ್ಟುವರು" ಎಂಬ ಅವರ ನುಡಿಯು ಹುಸಿಯಾಗದು. ಅವರ ಅಮರ ವಾಣಿಯು ಸದಾ ನಮ್ಮನ್ನು ಪ್ರಚೋದಿಸುತ್ತಲೇ ಇರುವಾಗ ನಾವಿನ್ನು ಜಾಗ್ರತರಾಗದಿರುವುದು ನಾಚಿಗೆಗೇಡು, ಅವರ ಜೀವನದ ಪ್ರತಿಯೊಂದು ಘಟನೆಯೂ ನಮ್ಮ ಜೀವನದ ಆದರ್ಶವಾಗಿದೆ. ನಾವು ಅವರ ಸಂದೇಶಗಳನ್ನು ಜಗತ್ತಿಗೆ ಸಾರಿ. ಅವರು ಹಾಕಿಕೊಟ್ಟ ಜೀವನ ಮಾರ್ಗದಲ್ಲಿ ಮುನ್ನಡೆಯುವ. ಅವರ ಆದರ್ಶ, ವಿಚಾರಗಳು ನಮ್ಮ ಮನದಲ್ಲಿ ಸದಾ ತುಂಬಿರಲಿ.

ನಿನಗಿಂದು ದೊರಕಿದೆ ಭಗವಂತನ ವರದಾನ
ಮಾಡುನೀ ದೇಶಕ್ಕಾಗಿ ನಿನ್ನ ಬಲಿದಾನ
ನೆನಸು ನೀ ವಿವೇಕಾನಂದರ ಸಕಲ ಆದರ್ಶ, ವಿಚಾರ
ಮಾಡು ದೇಶದ ದುಃಖ ದೂರ ಮಾಡುವ ಸುವಿಚಾರ.

ನಿನ್ನಲ್ಲಿ ಅಡಗಿರುವುದು ದಿವ್ಯ ದೇವತ್ವ
ಹೊರಗೆಳೆದು ಕಾಣಲಿ ಅದರ ಮಹತ್ವ
ಪರರ ಭಾಗ್ಯವ ಕಂಡು ಮರುಗದಿರು
ಅದರ ಕಾರಣ ನೀನೆ ಎಂದು ತಿಳಿಯುತಿರು.

ನಿನ್ನಲ್ಲಿರುವುದು ತ್ಯಾಗ, ಪ್ರೇಮಗಳ ಚಿಲುಮೆ
ಅರಿಯು ನೀನು ಭಗವಂತನ ಅಪಾರ ಮಹಿಮೆ
ಕಳಿದ ನಿನ್ನೆಗಾಗಿ ನೀನೇನೂ ಮರುಗದಿರು
ಬರುವ ನಾಳೆಗಾಗಿ ಏನೇನೂ ಚಿಂತಿಸದಿರು.

ನಿನ್ನಲ್ಲಿರಲಿ ದೇಶಸೇವೆಯ ದೃಢಪ್ರತಿಜ್ಞೆ
ನಿನ್ನ ಗುರುದೇವನ ಆದರ್ಶದ ಪ್ರಜ್ಞೆ
ನಮ್ಮ ದೇಹದ ಪ್ರತಿಯೊಂದು ರಕ್ತದ ಹನಿಯಿಂದ
ಆಗಲಿ ದೇಶದ ಉನ್ನತಿ ಭರದಿಂದ.

ಭಾರತದಲ್ಲಿ ವರ್ಣಭೇದ ನೀತಿ

B. SUREKA HEGDE, *II B.A.*

ಇಂದಿನ ಸಮಾಜದಲ್ಲಿ ಆಚರಣೆಯಲ್ಲಿರುವ ವರ್ಣಭೇದ ನೀತಿಯ ಮೂಲವನ್ನು ನಾವು ಆರ್ಯರ ಸಮಾಜದಲ್ಲಿ ಕಾಣಬಹುದು. ಇಷ್ಟು ದೂರ ಬೆಳೆದು ಬಂದಿರುವಾಗ ಈ ನೀತಿಯು ತನ್ನ ಹೋರಾವರಣವನ್ನು ಮಾತ್ರ ಉಳಿಸಿಕೊಂಡಿದೆ. ಹಾಗಿರುವಾಗ ತಿರುಳಿಲ್ಲದ ಈ ನೀತಿಯನ್ನು ಉಳಿಸಿಕೊಳ್ಳಬೇಕೇ ಬೇಡವೇ ಎಂಬುದು ವಿಚಾರಾರ್ಹವಾದ ಪ್ರಶ್ನೆಯಾಗಿದೆ.

ಹಿಂದಿನ ಕಾಲದಲ್ಲಿ ತಮ್ಮ ಆವಶ್ಯಕತೆಗಳನ್ನು ಪೂರೈಸಿಕೊಳ್ಳುವುದಕ್ಕೋಸುಗ ಜೀವನಾವಶ್ಯಕವಾದ ವಸ್ತುಗಳನ್ನೆಲ್ಲ ಅವರವರೇ ತಯಾರಿಸಿಕೊಳ್ಳುತ್ತಿದ್ದರು. ಆದರೆ ಮುಂದೆ ಆವಶ್ಯಕತೆಗಳು ಹೆಚ್ಚಾದಂತೆ ಇದು ಸಾಗದಾಯಿತು. ಆಗ ಕೆಲವು ಪಂಗಡಗಳವರು ಒಂದೊಂದು ಕೆಲಸವನ್ನು ವಹಿಸಿಕೊಂಡು ತಮಗೆ ಬೇಕಾದಷ್ಟು ಉಳಿಸಿಕೊಂಡು ಉಳಿದುದನ್ನು ಇತರರಿಗೆ ಕೊಟ್ಟು ಬದಲಿಯಾಗಿ ಅವರು ತಯಾರಿಸುತ್ತಿದ್ದ ವಸ್ತುಗಳನ್ನು ಕೊಳ್ಳಲಾರಂಭಿಸಿದರು. ಈ ಕೆಲಸಕ್ಕನುಗುಣವಾಗಿ ನಾಲ್ಕು ಪಂಗಡಗಳನ್ನು ಅಂದಿನ ಸಮಾಜವು ಸರ್ವಸಮ್ಮತಿಯಿಂದ ರಚಿಸಿತು. ವೇದ ವಿದ್ಯೆಯಲಿ ಪಾರಂಗತರಾದವರು, ಹೋಮ, ಯಜ್ಞ ಇತ್ಯಾದಿ ದೇವಕಾರ್ಯಗಳನ್ನು ಮಾಡುವವರು ಬ್ರಾಹ್ಮಣರು (ಬ್ರಹ್ಮವನ್ನು ತಿಳಿದವರು) ಎಂಬ ಹೆಸರು ಹೊಂದಿದರು. ವೀರರಾದವರು, ಹೋರಾಟದಲ್ಲಿ ನಿಪುಣರಾದವರು ಕ್ಷತ್ರಿಯರೆಂಬ ಹೆಸರು ಪಡೆದು ತಮ್ಮ ಸಮಾಜವನ್ನು ಆಪತ್ತಿನಿಂದ ರಕ್ಷಿಸುವ ಕಾರ್ಯವನ್ನು ಕೈಗೊಂಡರು. ವ್ಯಾಪಾರ ಕಲೆಯಲ್ಲಿ ಚಾಣಾಕ್ಷರಾದವರು ವೈಶ್ಯರೆಂದು ಕರೆಯಲ್ಪಟ್ಟರು. ಸಮಾಜದ ಆವಶ್ಯಕತೆಗಳನ್ನು ಪೂರೈಸುವುದು, ಇತರ ಸೋದರ ರಾಷ್ಟ್ರಗಳೊಂದಿಗೆ ವ್ಯಾಪಾರ ವ್ಯವಹಾರವನ್ನು ನಡೆಸುವುದು ಇವರ ಕರ್ತವ್ಯವಾಗಿತ್ತು. ಉಳಿದ ಸಣ್ಣಪುಟ್ಟ ಕೆಲಸಗಳನ್ನು ಸಮರ್ಪಕವಾಗಿ ನಿರ್ವಹಿಸಿ ಇತರ ಪಂಗಡಗಳವರ ಕೆಲಸ ಕಾರ್ಯಗಳಿಗೆ ನೆರವಾಗುವವರನ್ನು ಶೂದ್ರರೆಂದು ಕರೆಯಲಾಯಿತು.

ಅಂದಿನ ಸಮಾಜದಲ್ಲಿ ಈ ವಿಂಗಡನೆಯು ಬಹಳ ಉಪಕಾರಿಯಾಗಿತ್ತು. ಯಾವುದೇ ಒಂದು ಕಲೆಯನ್ನು ಊರ್ಜಿತಗೊಳಿಸಲು ಅದಕ್ಕೆ ತಕ್ಕ ಬೆಂಬಲ ಬೇಕು. ಉದಾಹರಣೆಗೆ ವಂಶ ಪಾರಂಪರ್ಯವಾಗಿ ವೈದ್ಯ ವೃತ್ತಿಯನ್ನು ಕೈಗೊಂಡ ಕುಟುಂಬದ ಸದಸ್ಯನಿಗೆ, ಹೊಸದಾಗಿ ಆ ವೃತ್ತಿಯನ್ನು ಕೈಗೊಂಡವನಿಗಿಂತ ಹೆಚ್ಚಿನ ಜ್ಞಾನವಿರುತ್ತದೆ. ಏಕೆಂದರೆ ಆತನ ಹಿರಿಯರ ಭಟ್ಟಿಯಿಳಿಸಿದ ಅನುಭವವು ಅವನ ಪಾಲಾಗಿರುತ್ತದೆ. ಹಾಗಿರುವಾಗ ಈ ವೃತ್ತಿ ವಿಂಗಡನೆಯು ಬಹಳ ಸಹಾಯಕಾರಿಯಾಗುತ್ತದೆ.

ಆದರೆ ದಿನಗಳೆದಂತೆ ಈ ಮೂಲ ಉದ್ದೇಶವು ಮರೆಯಾಗಿ ಬರೇ ಹೊರಾವರಣವು ಮಾತ್ರ ಪ್ರಾಮುಖ್ಯತೆಯನ್ನು ಪಡೆಯಿತು. ಸಮಾಜವು ಬೆಳೆದಂತೆ, ವೃತ್ತಿಭೇದವು ಮಾಯವಾಗಿ ಜನರು ತಮಗೆ ಇಷ್ಟವಾದ ಕಾಯಕವನ್ನು ಅವಲಂಬಿಸತೊಡಗಿದರು. ಆದರೆ ಅದರ ಜೊತೆಗೆ ಬ್ರಾಹ್ಮಣರು ಶ್ರೇಷ್ಠರು ಹಾಗೂ ಶೂದ್ರರು ಅತಿ ನಿಕೃಷ್ಟರು ಎಂಬ ಭಾವನೆ ಮೊಳಕೆಯೊಡೆಯಿತು. ಮುಂದೆ ಇದೇ ಬೆಳೆದು ಅತಿ ಕರಾಳ ರೂಪವನ್ನು ಪಡೆಯಿತು. ಬ್ರಾಹ್ಮಣರು ಶೂದ್ರರ ನೆರಳನ್ನು ಕಂಡರೆ ಸಿಡಿದು ಹೋಗುವಂತಹ ಕಾಲ ಬಂದಿತು. ಶೂದ್ರರ ಸ್ಥಿತಿ ಅತಿ ವಿಪರೀತಕ್ಕೆಟ್ಟುಕೊಂಡು ಅವರು ಜೀವನ ಸಾಗಿಸುವುದೇ ದುಸ್ಥರವಾಯಿತು.

ಸಮಾಜಕ್ಕೆ ಅನಿಷ್ಟಕಾರಿಯಾದ ನೀತಿಯನ್ನು ಇನ್ನೂ ಮುಂದುವರಿಸುವುದರಲ್ಲಿ ಯಾವ ಅರ್ಥವೂ ಇಲ್ಲ. ಇದಕ್ಕಾಗಿ ಅನೇಕ ಸಮಾಜ ಸುಧಾರಕರು ಇದರ ನಿವಾರಣೆಗೆ ಯತ್ನಿಸಿದರು. ಗಾಂಧೀಜಿಯವರು ಇದರಲ್ಲಿ ಮುಖ್ಯ ಪಾತ್ರ ವಹಿಸಿದರು. ದಕ್ಷಿಣ ಆಫ್ರಿಕದಲ್ಲಿ ವರ್ಣಭೇದ ನೀತಿಯ ಫಲವಾಗಿ ಭಾರತೀಯರು ಅನುಭವಿಸುತ್ತಿದ್ದ ಕಷ್ಟವನ್ನು ಕಣ್ಣಾರೆ ಕಂಡಿದ್ದ ಗಾಂಧೀಜಿ, ಭಾರತದಲ್ಲಿ ಹರಿಜನರ ಕಷ್ಟವನ್ನು ಊಹಿಸಲು ಸಮರ್ಥರಾದರು. ಅವರ ಉದ್ಧಾರಕ್ಕಾಗಿ ಪಣತೊಟ್ಟರು. ಜ್ಞಾನಾರ್ಜನೆಯ ಅವಕಾಶವನ್ನು ದೊರಕಿಸಿಕೊಟ್ಟರು. ಜನಸೇವೆ ಮಾಡುವಾಗ ಹರಿಜನ, ಬ್ರಾಹ್ಮಣರೆಂಬ ಭೇದವನ್ನು ತೋರ್ಪಡಿಸದೆ ತನ್ನ ಸೇವಾಶ್ರಮದ ಬಾಗಿಲನ್ನು ಸಕಲ ವರ್ಣಗಳವರಿಗೂ ತೆರೆದಿಟ್ಟರು. ಅವರ ಅನುಯಾಯಿಗಳೂ ಅವರು ಹಾಕಿಕೊಟ್ಟ ಪಥದಲ್ಲೇ ಮುಂದರಿದರು. ಇದರ ಪರಿಣಾಮವಾಗಿ ಈ ನೀತಿಯು ತನ್ನ ಪ್ರಾಮುಖ್ಯತೆಯನ್ನು ಕಳೆದುಕೊಳ್ಳುತ್ತಿದೆ.

ಇಂದೂ ಸಹ ಈ ಸುಧಾರಣೆಗಳು ಮುಂದುವರಿಯುತ್ತಲಿವೆ. ಸರಕಾರವು ಹಿಂದುಳಿದ ಪಂಗಡಗಳವರಿಗಾಗಿಯೇ, ಅನೇಕ ಸರಕಾರೀ ಹುದ್ದೆಗಳನ್ನೂ ಆಡಳಿತದಲ್ಲಿ ಸ್ಥಾನಗಳನ್ನೂ ಕಾಯ್ದಿಡುತ್ತಿದೆ. ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಅನೇಕ ವಿದ್ಯಾರ್ಥಿ ವೇತನಗಳನ್ನೂ, ಉಚಿತ ವಸತಿ ಸೌಕರ್ಯವನ್ನು ಒದಗಿಸಿಕೊಟ್ಟು ಆ ಮೂಲಕ ಅವರು ಉತ್ತಮ ಸ್ಥಿತಿಗೇರುವಂತೆ ಪ್ರಯತ್ನಪಡುತ್ತಿದೆ. ಈ ಎಲ್ಲಾ ಸೌಕರ್ಯಗಳು ಯುಕ್ತರೀತಿಯಲ್ಲಿ ಉಪಯೋಗಿಸಲ್ಪಟ್ಟಲ್ಲಿ ಈ ನೀತಿಯು ಅಳಿದು ಹೋಗುವುದು ನಿಸ್ಸಂಶಯ.

ಆದರೆ ಈ ಎಲ್ಲಾ ಸಾಧನೆಗಳಿಂದಲೂ ಭಾರತದ ವರ್ಣಭೇದ ನೀತಿಯು ಅಳಿದು ಹೋಗುವುದು ಸಾಧ್ಯವೆ ಎಂಬುದು ಮುಖ್ಯ ಪ್ರಶ್ನೆ. ಇತ್ತೀಚೆಗೆ ನಡೆದ ವಿಶ್ವಹಿಂದೂ ಪರಿಷತ್ತಿನಲ್ಲಿ ಅನೇಕ ಧರ್ಮ ಗುರುಗಳೂ ಸಹ ವರ್ಣಭೇದ ನೀತಿಯನ್ನು ಮರೆತು ಹರಿಜನರೊಡನೆ ಸಹಕಾರ ಬಾಳ್ವೆ ನಡೆಸಬೇಕೆಂದು ಕರೆ ನೀಡಿದರು. ಆದರೆ ಅವರ ಈ ಕರೆಯನ್ನು ಅವರೇ ಸಾಧಿಸಿ ತೋರಿಸುವುದಕ್ಕಾಗುತ್ತದೆಯೋ ಎಂಬುದು ನಾವು ಕಾದಿದ್ದು ನೋಡಬೇಕಾದ ಸಂಗತಿ. ಆದರೆ ಅದು ನಿಜವಾಗಿ ಕೈಗೂಡುವುದೇ ಆದಲ್ಲಿ, ಸದ್ಯಕ್ಕೆ ಅನಗತ್ಯವಾಗಿರುವ ವರ್ಣಭೇದ ನೀತಿಯು ತೊಡೆದು ಹಾಕಲ್ಪಡುವುದು ಖಂಡಿತ. ಹಿಂದೆ ಸಮಾಜದ ಅಭ್ಯುದಯಕ್ಕೆ ಕಾರಣವಾಗಿದ್ದರೂ, ಈಗ ಸಮಾಜದ ಅವನತಿಗೆ ಕಾರಣವಾಗಿರುವ ಈ ವರ್ಣಭೇದ ನೀತಿಯನ್ನು ತೊಡೆದು ಹಾಕುವಲ್ಲಿ ತಮ್ಮ ಪೂರ್ಣ ಸಹಕಾರ ನೀಡುವುದು ಭಾರತೀಯ ಪ್ರಜೆಗಳೆಲ್ಲರ ಆದ್ಯ ಕರ್ತವ್ಯ.

अगर आदमी के दुम होती

Nayantara Jndson II B.Sc.

अगर आदमी के दुम होती तो उसे बडी मदद पहुँचती । यह सभी जानते हैं कि जानवरों को दुम ले कितना लाभ है । जानवरों को अपनी दुम पर बडा नाज़ है । जिस तरह महाराज पर चामर डुलाया जाता है उसी तरह जानवर भी अपनी दुम हिलाते हैं ।

अगर आदमी के भी दुम होती तो मक्खियों को हटाने के लिए उसे दुम डी. डी. टी. की ज़रूरत न होती । उसी दुम से वह मच्छर भी मार डालता । तब हमारे गाँव में मलेरिया तथा अन्य बीमारियों का प्रकोप न होता ।

दुम मन की भावना प्रकट करने का एक अच्छा साधन है । अगर घर में बच्चे शरारत करते तो बेंत या छडी के बदले में दुम से काम लिया जा सकता था । दुम से आदमी के सौंदर्य में चार चाँद लग जाते । लडकियाँ अपनी वेणी सजाती हैं । अगर दुम होती तो दुम में एक रिब्बन लग जाता । प्रेमी और प्रेमिका अपनी दुम मिलाकर अपना प्रेम प्रकट करते । दफतर में साहब मेंज़ पर दुम पटककर चपरासी को बुलाता । तब घंटी की ज़रूरत नहीं रहती । सारे संसार का हाल बदल जाता । शायद भगवान ने मनुष्य की सृष्टि करते समय ईर्ष्यावश मनुष्य को दुम नहीं दी होगी । फिर तो मनुष्य का घमंड सीमा से अधिक बढ पाता । वह अपनी मर्यादा का उल्लंघन करता ।

जय भारतमाता

Prafulla Prabhu II B.Sc.

जय जय जय जय भारतमाता ।
तुझको मैं प्रणाम करता ।
नाम है तेरा सस्य श्यामला ।
तेरे गले में है जयमाला ।। जय ।।

उत्तर में है हिमालय और,
दक्षिण में हैं कन्याकुमारी ।
तीन ओर हैं तेरा समुद्र ।
देखती है तू कितनी सुंदर ।। जय ।।

देखो काश्मीर कितना सुंदर ।
कहलाता है वह धरती का स्वर्ग ।
गया, काशी और रामेश्वर ।
ये हैं, पवित्र और सुंदर ।। जय ।।

उत्तर में हैं पवित्र गंगा ।
दक्षिण में है नदी तुंगा ।
कावेरी और यमुना भी हैं ।
ब्रह्मपुत्रा भी बहती है ।। जय ।।

जय जय जय जय भारतमाता ।
तुझको मैं प्रणाम करती ।।

ख्रसमस

Lily Lobo II B.Sc., B.Z.C.

लोक भर में ख्रिसमस है
सभी मुखों पर आनंद ।
आज सब का पर्व दिन है
हृदय में महानंद ।।

लोक कल्याणकार ख्रिस्त का
जन्म का यह दिन है ।
लोकोद्धार करनेवाले
देवपुत्र का जन्म हुआ है ।।

इसदिन सभी लोग उत्साह से
पर्व आचरण करते ।
हृदय में दिव्य दीपों को जलाकर
सभी आत्मोल्लास पाते ।।

मेघमंडल में सभी देवदूत
जमकर आनंद से गाते ।
ऊँचे गगन पर हज़ारों तारे
ख्रिस्त का संदेश मुस्काते देते ।।

राही बढ़ते चलना

Nalini Kamath II Yr., B.A.

सुबह :—

जिन्दगी की राहों में
पाँव रखो ! आओ
बुला रहा है नवजीवन तुम्हें
राही चुपके न बैठो ।

सुबह का सूरज देखो
उग रहा है अभी अभी
डाली डाली पर ओ
'कूहू' कोयलिया गा रही है ।

राही, सुबह है अभी
बैठो न चुपके अब कभी
चलो चैतन्य बुला रहा
उठो जग आगे जाता रहा ।

काल का पहिया घूम रहा
आगे जाता कभी पीछे न आता
तुम पछताओगे राही
खोये क्षण पाओगे न फिर कभी !

दुपहर :—

हें ! यह क्या है ?
बैठे हो तुम अभी यहीं पर ?
उठो ! मुसाफिर अभी से चलो
जाना है तुम्हें जग से आगे ।

सूरज अब दुपहर का
राज्य है यह धूप का
चल न पावोगे तेजी से
बैठे क्यों चुपके सुबह से ?

क्यों? जा न सकोगे तुम ?
फिर भूल पर पछताओगे तुम
चलो राही अभी, मंजिल
तुमसे दूर नहीं ।

'चलना' तुम एक ही योचना
चलना, बस चलते रहना ।
जीवन की लंबी राहों पर
तुम सदा चलते रहना ।

शाम :—

तुम बैठे रहे सुबह से
अब पीछे रहे सबसे
क्या यही था तुम्हारा ध्येय ?
जीवन से कैसा किया न्याय ?

आई शाम की बेला
लेके भँवरों की मेला
है ये मधुर मुरली की बेला
क्षण है बहुत अलबेला ।

बहार है चारों ओर
लालिमा छा गई क्षितिज पर !
पंछी गा रहे मस्त तराने
लगी हवा भी गुनगुनाने !

पर ! राही तुम कभी
खो न जाना मस्त मदिरा में
चलते रहना आगे आगे
'मंजिल' पंहुचना ध्येय है तुम्हारा ।

हाय ! गया सूरज डूबा
छा गया चारों तरफ अंधेरा
पर तुम सदा चलते रहना
मंजिल की तरफ बढ़ते रहना ।

times have changed . . .

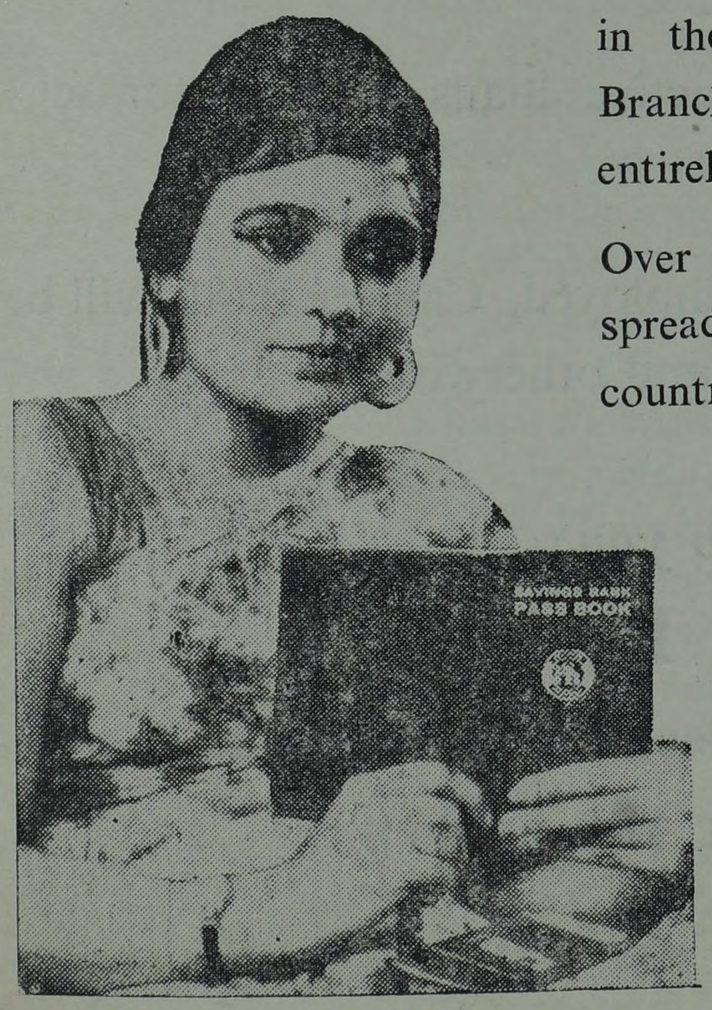


so are the habits of Women!

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Over 1200 ladies working in over 400 branches spread the message of saving through out the country.



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SYNDICATE BANK

H.O. MANIPAL

CUSTODIAN: K. K. PAI

JOBS
or
SELF-EMPLOYMENT?

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Let us help you

CANARA BANK

Head Office: Bangalore-2.

IN THE SERVICE OF THE PEOPLE

THE ST. AGNES COLLEGE MAGAZINE

IS HAPPY TO ACKNOWLEDGE RECEIPT OF ANNUALS FROM THE FOLLOWING:

AHMEDNAGAR	..	Ahmednagar College
AHMEDABAD	..	St. Xavier's College
ALWAYE	..	St. Joseph's Pontifical Seminary (*Caritas*)
AMALAGIRI	..	Bishop Kurialacherry College
ARAVITHURA	..	St. George's College
BANGALORE	..	St. Joseph's College, (*Blue & White*)
do.	..	St. John's Medical College
do.	..	St. Joseph's Higher Secondary School
do.	..	St. Joseph's Boy's High School
do.	..	St. Jeseph's Indian High School
do.	..	Mount Carmel College
do.	..	St. Teresa School
BANTWAL	..	Sri Venkataramana Swami College
BOMBAY	..	Sophia College
do.	..	St. Xavier's College
CALICUT	..	St. Joseph's College, Devagiri
do.	..	Providence Women's College
CHANGANACHERRY	..	Assumption College
CHITTOOR	..	Government College
COIMBATORE	..	Nirmala College
COONDAPOOR	..	Bhandarkar's Arts & Science College
CRANGANORE	..	Kunhukuttan Thampuran College
DARJEELING	..	Loreto College (*Palm Leaves*)
DELHI	..	Carmel School
DUBLIN	..	St. Francis Xavier's College (*The Belvederian*)
ERNAKULAM	..	St. Albert's College
do.	..	Sacred Heart College, Thevara
do.	..	St. Teresa's College (*Teresian*)
GOA	..	Carmel College
do.	..	St. Xavier's College
GUNTUR	..	Andhra Christian College
GURUVAYOOR	..	Little Flower College (*Assisi Blossom*)
KASARAGOD	..	Government College
KINNIGOLI	..	Little Flower High School (*Navaneethi*)
KERALA	..	St. Berchman's College
KOTEHAR	..	Anandashram High School
KOTTAYAM	..	Mount Carmel Training College
KALLIANPUR	..	Milagres College
MADRAS	..	Loyola College
do.	..	Stella Maris College
do.	..	Women's Christian College (*The Sunflower*)
MANNAMNAM	..	Kuriakose Elias College
MANGALORE	..	St. Aloysius College
do.	..	St. Aloysius Evening College
do.	..	St. Ann's High School
do.	..	Ganapathi High School (*Balavani*)
do.	..	Government College

MANGALORE	..	St. Joseph's Interdiocesan Seminary
do.	..	Lady Hill High School (*Mariosa*)
do.	..	St. Mary's High School (*Marylite*)
do.	..	Rosario High School
do.	..	Institute of Social Service (*Roshni Samaj*)
MANIPAL	..	Kasturba Medical College
do.	..	Manipal Engineering College
MOODABIDRI	..	Mahaveera College
MYSORE	..	Maharaja's College
do.	..	Saradavilas College
do.	..	Teresian College (*The Helicon*)
NAGPUR	..	Hislop College
PALAYAMKOTTAI	..	St. Xavier's College
PALGHAT	..	Mercy College
PUTTUR	..	St. Philomena's College
QUILON	..	Fatima Mata National College (*Pyarima*)
ROCHNAGAR	..	Holy Cross College
SAGAR	..	Nirmala Girls' High School
SURATHKAL	..	Karnataka Regional Engineering College (*The Karnatakian*)
THANJAVUR	..	The Rajah Serfoji Government College
THRIKKAKARA	..	Bharata Mata College
TIRUCHIRAPALLI	..	Seethalakshimi Ramaswamy College
do.	..	St. Joseph's College
TRICHUR	..	St. Mary's College (*The Marian Voice*)
TRIVANDRUM	..	Mar Theophilas Training College
do.	..	Mar Ivanios College
VELLORE	..	Voonhees College
UDIPI	..	Sri Poornaprajna College

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