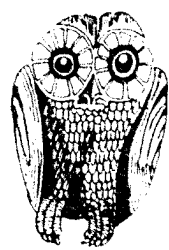


XVIIIth GENERAL ASSEMBLY

ASTROKOSMOS



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Number 9



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TRIBUTES TO M.K. VAINU BAPPU

**Professor E.K. Kharadze —
On behalf of the IAU**

Dear Colleagues, friends, ladies and gentlemen,

On behalf of the International Astronomical Union I express the most profound sorrow caused by the most untimely death of the present President of our Union, the distinguished scientist Professor Manali Kallat Vainu Bappu, 55 years of age.

We have all gathered here today at this mournful moment to pay a worthy tribute to his memory.

During Prof. Bappu's triennial presidency of our Union, we have witnessed his devotion to the interests of the Union, his very fruitful activity aimed at its consolidation and strengthening of its scientific effectiveness for the further development of our science - astronomy, all over the planet. The members of our Union will also remember Prof. Bappu's contribution at the earlier time of his office in the Union as Vice-President in 1967-1973.

Prof. Bappu's prominent activity in the Union and in the world - wide astronomical community in general carries the features not only of the skill of an experienced eminent scientist, but also of personal tact, kindness and benevolence to everybody, that has always been so highly appreciated by his colleagues and that has made collaboration with him so pleasant and easy.

We are all sharing Mrs Bappu's inconsolable grief.

Every effort was made in Munich to save Prof. Bappu. The medical care was on the highest possible level. But, unfortunately, it was not Professor Bappu's fate to recover.

With his death, not only me — the Union, suffer a great loss, but so does the entire astronomical world. Moreover, the astronomical Community in India is feeling it badly. They have lost their leading astronomer, who was full of plans and ideas concerning further development of astronomy in India.

Last year Prof. Bappu visited several observatories in the USSR. We have a vivid memory of that visit, and of the enthusiasm with which he spoke on the development of astronomy in India. Many of his plans are left unfinished. But however profound the sorrow may be, however great the loss, our Indian colleagues should be encouraged to go on with their endeavours. That would be the best tribute paid to Prof. Bappu's memory by his compatriots.

Being a member of the USSR delegation to this General Assembly, I permit myself to express on behalf of the USSR astronomers also, most heartfelt brotherly condolence and sympathy to the Indian delegation.

**Dr. J.C. BHATTACHARYYA —
On behalf of the Indian National
Science Academy**

It was with a profound shock that we learnt about the sudden, unexpected passing away of Prof. M.K. Vainu Bappu at Munich on the 19th of this month. A few days ago, we had the vision of a grand reunion of old friends here; we did not even dream of such a calamity of cruel fate snatching away our beloved, illustrious compatriot at this juncture. It is difficult

to believe that Vainu Bappu, our charming friend and leader who was so full of life, will never be among us again.

Bappu completed his fifty-fifth year only a few days ago, we have been looking forward to many more years of his company and guidance. The great upsurge of astronomical activities in India, particularly in the Institute of Astrophysics, which he created, has suddenly lost its main guiding force. It is like a nightmare of a group of sailors in mid-ocean waking up to find their captain missing. He leaves behind not only the team of scientists he has guided and brought up, but also his wife Yemuna and his aged mother to suffer this unbearable loss.

Bappu's contribution to astronomy cannot



This photo of Professor M.K. Vainu Bappu was taken in 1980 in solar Eclipse campus in Yawalagere (India), by Yugoslav astronomers.

We want to express our deepest regrets on the occasion of our dear friend's death.

**J. Arsenljević
1187, YUGOSLAVIA**

be summed up easily. He has discovered new objects, new relations, created and guided new schools of astronomers, inspired active societies and taken part in a wide range of international activities. He had a deep understanding of many problems; whether it was in instrumentation, or stellar process: or problems concerning tenuous gas clouds, he was able to suggest ways most likely to lead to tangible answers. A gem of a teacher, as anybody who has listened to his lectures would testify, he could attract and hold audiences spell-bound. A brilliant organizer who could foresee the minutest details of a

projected venture years in advance; in short, Bappu represented a personality of an ideal world, so rare in real life.

We have been fortunate to have this magnificent personality so close to us, and that makes our present loss overwhelming. His circle of friends covered the entire world; many of them are present here, and I am confident that all will agree how his adorable personality charmed everyone who came in contact with him.

One great aspect of Bappu was his love of nature which he worshipped and to which he tendered his creative ideas as offerings; the Institute premises at Bangalore, Kavalur and Kodaikanal bear mute testimony to this enchanting quality. He implored others to develop a sincere love for nature. Speaking on one occasion he remarked: «To a person who enjoys a glorious sunset or marvels at the beauty of a cobweb glistening with the morning dew, nature unfolds her unending stream of magical charms».

Bappu is no more; he now belongs to eternity. His mortal remains have returned to mother nature he loved so much. Only a few days ago, as I was talking to him by telephone from India, he appeared so full of vitality and confidence. The thought uppermost in his mind was of his Assembly. «Do not worry about me», he advised, «go and join the General Assembly which must be a success. Nothing - nothing should mar the proceedings» That was his wish; we all owe him our sincere efforts to see that it is fulfilled.

**Academician J. XANTHAKIS —
On behalf of the Greek National
Committee for Astronomy**

Le Comité National d'Organisation exprime ses sincères condoléances pour la mort de notre président, le professeur Bappu.

Avec vive émotion, je me rappelle qu'il y a huit mois, le professeur Bappu nous a rendu visite -avec le Secrétaire Général de l'UAI, Monsieur Wayman, pour discuter des affaires concernant la préparation du 18ème congrès.

A cette époque, il était en pleine santé et a manifesté un grand intérêt et beaucoup de dynamisme pour l'organisation de notre congrès.

L'annonce de sa mort subite, nous a laissés dans une profonde consternation et les drapeaux en berne sont le reflet de notre grande peine.

**Professor C.L. GOUDAS —
On behalf of the Local Organising
Committee of the XVIIIth
General Assembly**

Members of the Assembly, Ladies and Gentlemen,

We are gathered here to mourn for the loss of an excellent scientist and a noble man. To mourn for Vainu Bappu, the President of our Union, whose personality and high qualities are known, to a larger or smaller extent, by all.

The death of a President during the General Assembly he was supposed to preside over is an event without precedence and most likely never to be repeated.

As Chairman of the Local Organizing Committee of the General Assembly that will

be marked and remembered not only for its scientific works but also the loss of Vainu Bappu, I wish, in retrospect, to remind you of the story of Diagoras. Being a veteran of past Olympic games, and while lifted on the shoulders of his two olympic laureate sons inside the stadium of Olympia, Diagoras was cheered by the crowds with the unusual wish «Die now Diagoras». The crowds wished him to die at the moment of the peak of his glory.

Unable as we were, and are, to influence the decisions of fate, we cannot but observe that, since Vainu could not but leave us, the choice of moment of the inevitable was for him a grace — a moment of glory, recognition and appreciation.

Of course, such thoughts can hardly now be mentioned to the immediate family of the deceased. To them we express our deepest condolences.

Long live the memory of Vainu Bappu

**Professor A. BLAAUW —
As past President of the IAU**

Dear friends and colleagues of Vainu Bappu,

Three years ago, at the closing of the General Assembly at Montreal, when Vainu assumed the presidency, he conveyed to us his feelings of gratitude and joy in anticipation of the task ahead. «As each member», he said, «individual and country, contributes stone by stone to the vast edifice of astronomical knowledge, we rejoice without reservation and in all friendliness at the triumph of the human mind over a facet of Nature. In encouraging opportunities and providing that little extra fillip needed to cross the threshold into the domain of creative productivity, the Union can play an important role».

It is in this spirit that Vainu Bappu, during these past years has served the Union, with his many talents as a scientist and as an organizer. Three years during which he helped guide the affairs of the Union with determination and with the experience and foresight that had already made him so distinguished a renovator of astronomy in his home country. Members of the Executive Committee and of course even more his close collaborators, the Union officers, will long remember his deep concern for all that was in the interest of the IAU.

How immensely would he have enjoyed being among us these two weeks, seeing the accomplishments of tasks undertaken, the realization of plans designed — and above all, how would he have rejoiced in the company of so many dear friends from all over the world, engaged with them in scientific discourse in the subject of astronomy that had fascinated him from his early childhood.

It has not been given to him and to us, for him to be with us during these days. But we know how much he gave his thoughts to this Assembly, long before its official beginnings and with how much care he devoted himself to contributing to its successful proceedings; the several weeks spent in Munich in quiet contemplation of the many affairs to be dealt with and we can only surmise the deep

continued on page 2

Tributes to M.K. Vainu Bappu

continued from page 1

disappointment he must have felt when it became clear that he would be unable to participate himself.

But we have had the privilege of sharing his thoughts of those last weeks by the message he conveyed to us at the opening of his Assembly May I remind you of the words Vainu passed on to us in his presidential address and let me quote a few sentences from it

«While innovation in technique is a factor of much significance in the discoveries that will yet be made, it is certain that an even greater role will undoubtedly be of the human intellect. Time and again we have seen how an individual has appeared on the scene and transformed a picture of gathering confusion into one of logical rigour and aesthetic simplicity. In the final reckoning, it is this aspect of Man that is responsible for the culminating triumph. It is, therefore, a responsibility shared by each one of us in our individual roles, be it of teacher or senior colleague as well as of the astronomical community and the Union as a whole, to nurture such possibility. In its longterm view of contributing to the development of Astronomy the Union must necessarily give considerable attention to the very important role of the individual in Astronomy.»

As we take up our tasks for the Union and for research and teaching, let us keep these words of Vainu Bappu in mind

Dr. Harlan G. Smith - as a close friend

Vainu Bappu was probably my closest friend. For 33 years the strands of our lives have interwoven even to the extent of his being best man at my wedding, and my just missing (because of academic schedules) being something of an equivalent at his wedding in India. I mention this because so few now in the IAU have had the privilege of really knowing him, and it is my grievous task to say farewell to him as a friend, on behalf of us all.

When the IAU was founded most astronomers knew each other, often rather well. Vainu was proud of the growth of our science, but regretted that he could only know so few of us, especially the young astronomers who are coming up so fast. For those who did not know him, I want to share several memories. There is no way I can truly bring out the richness of Vainu's life and mind and

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personality, but these vignettes — like flashes of lightning revealing fragments of landscape — may help you to glimpse the wonderful human being behind the formal degrees, the papers, and the honours he so well deserved.

In January 1949 we entered the Harvard Graduate School of Astronomy — entered with trepidation yet excitement to be studying in halls peopled with memories of the likes of Bond and Pickering, and the very real presence of Shapley, Bok, Payne-Gaposchkin, Menzel and Whipple. In the so-called liberal arts there is now a cult — I believe unfortunate and destructive — of the anti-hero, with its emphasis on sickness and psychosis, on feet of clay. But Vainu belonged to an older and finer school. His spirit was generous, kind, non-cynical — even hero-worshipping in the best sense of the word. He deeply admired if not even venerated his teachers and those, living or dead, who had really accomplished something. He well knew and understood human frailties, but to Vainu the important things were those qualities and works of great men and women which should be admired and emulated as far as possible in his own life.

Then, as now, it was fashionable for graduate students to work very hard, and we did — sometimes tired and discouraged. I recall an occasion walking home with Vainu late on winter night, our conversation turning to whether we might ever get jobs or amount to anything in astronomy. Nearly always cheerful, he brightened up and proceeded to quote from his memory, well-stocked with classics, the entirety of his favorite poem — Kipling's «If». Though I cannot quote them exactly, most of us are familiar with a few of its famous lines, to the effect

*If you can keep your head,
when all about are losing theirs,*

Then you'll be a man, my son.

Then you'll be a man, my son.

*If you can hazard all upon a toss,
and lose, and rise to try again,*

Then you'll be a man, my son.

The spirit of this poem was truly a beacon to his life — encouragement always to try to answer those «ifs» with «I can, and I will».

Yet Vainu was anything but solemn. He laughed, and joined in most of the games and jokes. He found the necessary paraphernalia, and organized at the Observatory what must have been the only cricket team within a few hundred miles, teaching us the mysteries of sticky wickets and googlie-balls. On one occasion he gaily commented on some virtues of yoga, to the amused condescension of some of the other graduate students. So he inveigled me into a scientific test. We both stood on our heads (one form of yoga) for ten

or fifteen minutes before each major exam. And, that year, we two were the only students to pass them all. QED! (but Vainu was too gentle ever to rub it in).

In those innocent days we had never even dreamed of being given money to travel to meetings. Yet Vainu never wanted to miss a session of the American Astronomical Society. So we went to all of them in our part of the country, doing what was necessary to make it possible, such as driving in my \$75 Model A Ford, literally spending nights on the lawns of host observatories in our war-surplus sleeping bags. Hot or cold, hungry, mosquitoes — Vainu never complained, and usually managed to bring the conversation around to astronomy.

He finished his PhD in near-record time. Then, after a couple of brilliantly successful years as a post-doc at Cal Tech, he could easily have obtained a comfortable job in the US. But I never sensed any doubt in his mind. His dream was to build and to do astronomy in India. I think it is hard for us now to realize the courage of this decision — to leave the centre of world astronomy, the 200-inch, and return to an India, which then, just after Independence, lacked any of the structure of modern astronomy, with essentially no institutes, telescopes, colleagues... not even a job. That first period effectively of unemployment, in the midst of such desperate poverty, might indeed have made him wonder whether — having risked his all upon a toss — he might have lost, and could he rise again?

Then came the chance, largely through his own persuasion of a reluctant minister, to build a U.P. State Observatory at Naini Tal. And shortly thereafter came Yemuna, a pillar of love and strength throughout his life. From then on the path was up. You know at least the outline of the rest, but again I think cannot easily imagine the problems to be overcome, the incredible effort involved, in an India trying to build nearly everything at once from scratch, to in effect create three astronomical institutions, a national society, a national journal, optical and machine shops, engineering and computer contacts and facilities adequate to design and build entirely within India a 2.34-meter telescope. Yet during all this time he was constantly looking for, and then looking out for, dozens of students who are now putting India on the astronomical map.

He did these things, and more, and reached the very top. This meeting in Patras would have been the peak of his career. I believe it meant more to him than words can convey, something he had been building toward for 40 years and more. Yet, when the urgency of the operation became clear, he adjusted with remarkable speed and calm philosophical acceptance both to missing this peak, and to the very real risk of the operation.

My wife and I spent a day and a night with

Vainu and Yemuna just before the operation. He was vigorously planning at least a few major things for the future, finishing the Kavali telescope, getting the 1985 IAU off to a good start, and, finally, contemplating the course of his life after mandatory retirement around 1985 as director. In general he was planning to travel to many institutes to renew old friendships and make new ones and to concentrate on science.

Now these travels will be in our memories and the work done by others. Meanwhile, my hearts are with Yemuna and with Vainu's mother. I want them to know that for Kipling's poem has come true. Each of our «ifs» has become a «Because», or «Since». Vainu really did live up to all of them. I hope his mother might take comfort in adding a final couplet:

*Since you ran the course, against all odds
and won,
You did indeed become a man, my son.*

TODAY'S EVENTS: LES EVENEMENTS DU JOUR

At the Averof Grand Hotel:
20.00 Closing Dinner.

At EOT Swimming Resort, Apatras:

WINE FESTIVAL: 20.00-24.00.

PLANNING AN OBSERVATIONAL CAMPAIGN

The International Directory of Amateur Astronomical Societies (IDAAS) is providing constantly updated information on more than 1100 amateur organizations from about 50 countries: addresses, phone numbers, activities, publications, etc.

If the original aims of the IDAAS were to bring closer together amateur astronomers around the world and to facilitate the collaboration, it proved also to be an efficient help to professional astronomers in planning campaigns, etc. Public bodies also use the IDAAS to foster astronomical popularization.

The 1982 (4th) edition of the IDAAS has just been published and is distributed at the cost of production. Persons interested in the 320 page publication should drop their name and address in the box of A. Heck (> 0088 Spain) or write to

A. Heck
c/o ESA Satellite Tracking Station
Apartado 54065
Madrid - Spain

or to
J. Manfroid
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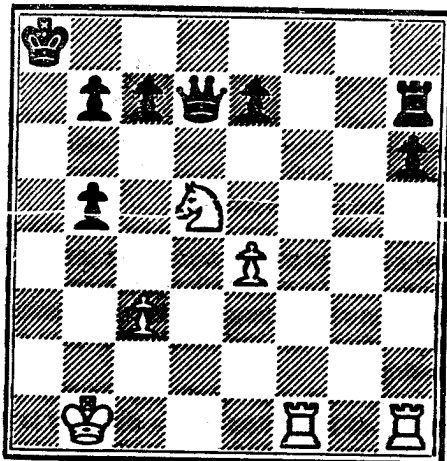
stifatho

- 1 1/2 kilo beef or hare
- 1 1/2 kilo small onions
- 1/2 kilo olive oil
- 2 ripe tomatoes or 1 dessertspoon tomato paste diluted in 1/2 cup water
- 2-3 bay leaves
- 1 cinnamon stick
- Salt, pepper, oregano, half a garlic, 1/2 wineglass wine vinegar

Cut the meat into serving portions, put in a pot and brown it lightly in olive oil. Add tomato, cloves of garlic, cinnamon, bay leaves, oregano, vinegar, salt and pepper and stew for one hour. Then put in the onions whole, cover tightly and cook slowly until done.

Wanda Goudas

Chess Position 9

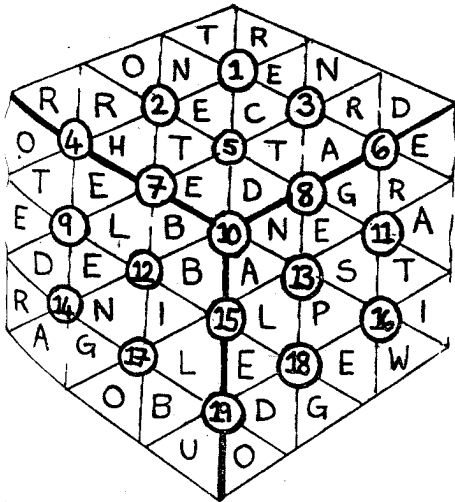


White, to play, wins

Solution to Chess Position 8:

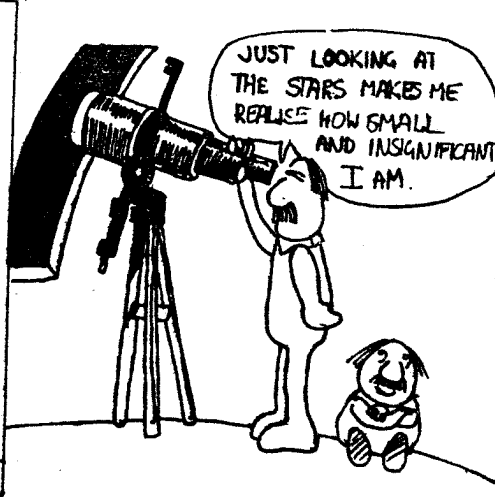
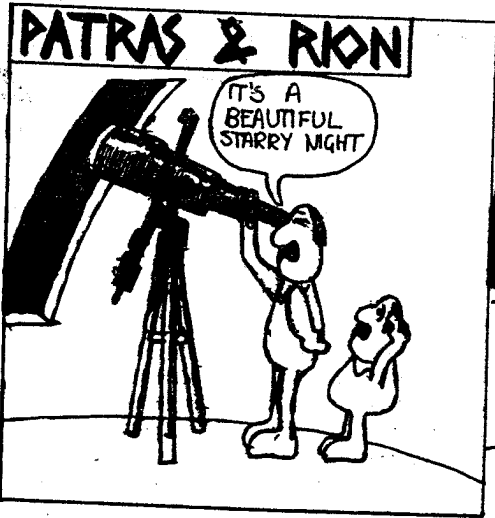
1. P-Kt4, PXP 2. K-Kt3, P-Kt6. K-B4, K-Kt3
4. R-Kt8 ch, K-R3 5. R-R8 ch. White has perpetual check.

V.V.M.



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ASTRONOMY ON STAMPS

Margaret I. Morris

Inquire among astronomers and, as with any other occupational group, you will find a wide range of hobbies and spare time activities. Some people enjoy sport or athletics, others prefer to be soothed and relaxed, while a change from one mental activity to another can often prove refreshing.

There is one hobby ideally suited to tired astronomers (or those suffering the frustrations of bad weather on an observing run) and that is the collecting of astronomy on stamps. Philately is a most accommodating hobby; it can be tailored to suit the time and funds available, or adapted to special interests. It is

by how many stamps are available to be collected. If you had asked me that about 30 years ago the answer would have been - not very many. Since then several things have happened to alter the scene.

First of all there was the International Geophysical Year 1957-58 when stamps began to appear with designs including such things as a meteor, aurora with all-sky camera, sunspots, observatories, and my collection doubled overnight! Also in 1957 the first Sputnik ushered in the space age and simultaneously opened the floodgates to a torrent of space stamps many of which have included astronomical features. The third major explosion in astronomical stamps was the celebration in 1973 of the quincentenary of the birth of Copernicus with stamp issues from many countries.

All aspects of astronomy can be found on stamps. Perhaps you may decide to start with some stamps illustrating mythology or worship of the sun and moon. If you are interested in archaeoastronomy, there are useful stamps from the mesoamerican countries, also British postmarks depicting Stonehenge and a French stamp showing Carnac.

The famous men of astronomy are well represented in philately. The most frequently portrayed is Copernicus, but there are also numerous stamps and special postmarks honouring Kepler and Galileo.

A few people have been shown on stamps who, although initially astronomers, are better known for other activities. Two examples would be statesman General Stefanik (on Czechoslovakian stamps) of the Paris Observatory and aviation pioneer Lawrence Hargrave (Australia) of the Sydney Observatory. Physicists like Boltzmann, Kirchhoff and Planck can also be included.

Instruments, early to modern, are well distributed throughout the stamp album. Astrolabes of various types, quadrants and armillary spheres, early Chinese instruments and even astronomical clocks can all be found. The history of the telescope may be traced through stamps.

Many countries have proudly illustrated their national observatories on stamps and, if

the occasion for issue is an anniversary, the early buildings have sometimes been shown contrasted with the newest ones.

Sun, moon and planets have made successful stamp designs and various astronomical phenomena can also be found. A large number of stamps feature constellations, the zodiac being particularly popular.

For the layman, there are many stamps with "easy" astronomical designs - for example, anyone can readily identify the Southern Cross and it is not difficult to recognise a telescope or an observatory. However, for the professional astronomer part of the fascination lies in the ability to seek out the more unusual designs and to appreciate their significance.



Many stamps depicting Galileo use the famous Susermans portrait, but this attractive issue shows the Leoni portrait. Also shown is one of his drawings of the moon as he saw it through his telescopes.

also satisfying from an artistic aspect, as many stamps are small works of art and the hand of individual designers can be detected. Good friendships can develop through ex-



change of information or material with collectors in other countries.

For anyone seriously thinking of taking up this pursuit, the first question would proba-

SCANDIA RESTAURANT

Agiou Andreou 6.

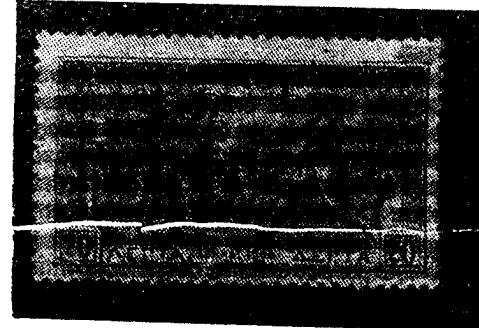
In our menu you will find the succulent specialities of the Greek cuisine. The original moussaka and the ever popular Greek souvlaki served with rice Both are gourmet's delight. Your choice of wide variety of our tasty pizzas and sea food is also available. Open to serve you from 17.00 to 02.00.

Our catering service is also operating the Wine Festival of the International Astronomical Union.



The badge of St. Kitts-Nevis as used for SG Type 1 of the 1903 issue. This illustration is from an uncleaned die proof.

Well known anachronism. Columbus «discovering» St. Kitts-Nevis with telescope (invented after his death)



1906 Olympic games issue from Greece. Shows Hercules supporting the heavens (represented by «slab» with stars and moon) while Atlas fetches the golden apples of the Hesperides

An example to illustrate this point is the 60c value of a set issued in 1967 by Venezuela to commemorate the 400th anniversary of the city of Caracas. This stamp design consisted of two sections of sky showing the meridian of Caracas 400 years ago and in 1967. The star patterns shown had clearly moved in that interval and so this stamp could be used to demonstrate precession.

This hobby can be deeply satisfying in so many ways. If you happen to develop a taste for the philatelic aspect as opposed to the actual subject, you will find plenty to stimulate you. For instance, the 1923 Polish stamps for the 450th anniversary of the birth of Copernicus were printed from different plates, each with its own characteristics and varieties, on paper of differing thickness and separated by several distinct styles of perforation.

Postal history is another branch of philately which can expand an astronomical collection. I have, for example, a letter written by LeVerrier in 1846 (the year of the discovery of Neptune) to the secretary of the Royal Society thanking them for the award of the Copley Medal. Another treasured item is a special envelope printed for the 1901 Sumatra eclipse expedition and addressed to Professor David Todd.

Here, then, is a hobby offering variety and interest. There is the pleasure of acquisition as each new item is added, there is the fun of seeking out information to enhance the interest and there is also the aesthetic appeal of beautiful and colourful stamps tastefully laid out and annotated.

I have to warn you that you could find such a collection completely absorbing - you might even find yourself wishing that it would cloud over!

EXPOSITION DE REALISATIONS ASTRONOMIQUES SIMPLES

par L. Bottinelli

Des exemples d'instruments simples, réalisés à peu de frais et de documents photographiques et spectroscopiques obtenus par des enseignants français sont exposés par la Commission 46, dans le bâtiment central

Ces réalisations ont été obtenues soit au cours des écoles d'été organisées par une équipe d'astronomes français, soit par les enseignants avec leurs élèves.

SITUATION DE L'ENSEIGNEMENT DE L'ASTRONOMIE DANS LES ECOLES FRANCAISES

La part de l'astronomie dans l'enseignement secondaire français est très modeste. Elle apparaît dans les programmes de physique dans la classe de 4ème (enfants de 13-14 ans) et de 1ère littéraire (16-17 ans) et dans le programme de mathématique des classes terminales littéraires (17-18 ans)

Elle est donc surtout l'occasion de développer l'aspect expérimental de la physique dans le champ d'application particulièrement riche de l'Univers

Les enseignants n'ont généralement pas reçu de formation initiale en astronomie; c'est pourquoi il est essentiel de développer les possibilités de formation continuée. Dans ce but, plusieurs actions sont menées en France, dans diverses universités. Un exemple est l'école d'été organisée chaque année depuis 6 ans par une équipe d'astronomes (L. Bottinelli, F. Delmas, J. Dupré, M. Gerbaldi, L. Gouguenheim, M. Gros et G. Paturel). Cette école regroupe chaque été 70 à 80 participants pendant une dizaine de jours; l'enseignement dispensé est à la fois théorique et pratique

Les instruments et les documents photographiques exposés ont été généralement réalisés au cours de ces écoles d'été. Il s'agit de réalisations modestes. l'accent est mis sur l'aspect pédagogique et le prix de revient modique. L'intérêt essentiel des instruments est qu'ils peuvent être réalisés et utilisés facilement par des enfants, ce qui leur permet d'expérimenter eux-mêmes.

On donne ci-dessous une brève description des maquettes, des instruments d'observation et des documents photographiques exposés

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(Activities of the Hellenic
Astronomical Society)

The Hellenic Astronomical Society was founded 35 years ago by Professor S. Plakides with the aim of popularizing Astronomy in Greece. This is done with various publications of astronomical articles, visits to Observatories, lectures and rewards to secondary school students.

The president of the Society Mrs. M. Laskaratou is taking part in the XVIIIth General Assembly and has reported, in a meeting of Commission 46, on the level of the teaching of Astronomy in Greek Secondary schools

She announced current plans for the foundation of a Research Center for Seismology and Astronomy on the island of Cefalonia, in Western Greece. When completed it will be the largest establishment of this sort in Southern Europe. The funds for the new Research Center will be provided by the Greek ship-owner and benefactor of the island of Cefalonia Mr. Andrew Vergotis. He will be the second notable donor of large sums of money to Greek Astronomy, after M. Korgialienos who donated, for example, the large telescope at Kiato Observatory. Both these benefactors are from the island of Cefalonia

SIMOS PHOTOGRAPHY

Photos of the functions and activities of the I.A.U. are on display for sale in the concourse bldg. Next to the news stand.

MAQUETTES

Les maquettes mouvementées sont destinées à visualiser les mouvements apparents des planètes, du Soleil et des étoiles. Ce sont:

- une sphère armillaire, réalisée en ébénisterie par des enseignants du groupe «Ciel» des Centres d'Entraînement aux Méthodes d'Education Active (CEMEA). Ce groupe a beaucoup étudié les instruments anciens et mais en évidence leur intérêt pédagogique.
- un planétaire héliocentrique en carton
- un planétaire géocentrique en carton (conçu par B. Sandré)
- une carte céleste mobile en carton
- un héliolabe (groupe «Ciel» CEMEA)

INSTRUMENTS

Quelques exemples d'instruments d'observation simples réalisés par des enseignants sont exposés:

- un dispositif permettant de réaliser n'importe quelle sorte de cadran solaire par projection, imaginé et réalisé par D. Toussaint
- un nocturlabe permettant de déterminer l'heure (solaire) la nuit en observant l'étoile polaire et la Grande Ourse (groupe «Ciel» CEMEA).
- une monture équatoriale en bois permettant de réaliser des poses photographiques de plus d'un quart d'heure (conçue par Y. Dargery)
- un spectrographe simple (conçu et réalisé par D. Bardin)
- un dispositif permettant de mesurer la température effective du Soleil, par l'échauffement d'un bloc de laiton (réalisé par J. Dupré et G. Paturel)
- un sextant (J. Dupré).

DOCUMENTS

Quelques documents photographiques, réalisés avec ces instruments simples:

- photos de champs stellaires, de nébuleuses et de spectres stellaires (D. Bardin et A. Villette)
- photos en couleur réalisées par les élèves de D. Toussaint (12 à 14 ans) dans le cadre d'un travail sur la couleur des étoiles
- photographies de champ d'étoiles et de l'éclipse totale de Soleil de Crimée réalisées par le club des «Pleiades» animé par J. Chapelet.
- portraits d'astronomes célèbres dessinés par des enfants de 12 à 14 ans du Collège Valéri de Nice.

FORMATION OF THE PLANETARY SYSTEMS

A book on the formation of planetary systems has just been published by the French Space Agency (A. Brahic editor). It deals mainly with the origin of the solar system, the formation of planetary systems, and the physics and chemistry of planetary interiors, surfaces, and atmospheres. 21 authors contribute to this book (Elmegreen, Reeves, Lattimer, Allegre, Minster, Bibring, Langevin, Burns, Brahic, Greenberg, Caze-nave, Owen, Gautier, Blamont, Mignard, Scholl, Masson, Dobrovolskij, Lust, Margulis, Laberyrie). For all information, please write to Cepadues, 111 rue Nicolas Vauquelin, 31100 Toulouse, France or ask to A. Brahic (n. 1648).

Commission 37 — Star clusters and associations Session 371 — Cluster cores

This takes place in room B2 from 11.30 to 13.00, and not in A1 as stated in the Diary and in Astrocosmos No.4. Main speakers are

D. Lynden-Bell: Theory
D.H. Martins: Visual surface photometry.

There will also be a briefer review of UV surface photometry.

Related poster papers are on display throughout the morning from 09.30 in room DB.

D.C. Heggie, Chairman

Editorial

TAKE ME TO YOUR LEADER

Every astronomer has speculated about life elsewhere in the universe. The topic is also an inexhaustible source of science fiction stories and films. Of course the term science fiction covers a wide spectrum of treatments of the subject. In the fifties there appeared a number of excellent films, mature and thoughtful about possible encounters of mankind with extraterrestrial visitors

There also appeared a large number of films so incredibly bad that it almost became an enjoyable pastime counting the clichés. The titles were pretty dreadful too. I remember one that collated all the major themes of interest — It was: «I married a teenage werewolf from outer space» Beat that if you can

In these films there was always an old scientist and he always had a pretty daughter with whom the young handsome scientist fell in love. There was always an aunt/uncle/friend/Cassandra whose job it was to intone «Man was not meant to meddle in such realms» or «Of course you realise it means the end of civilisation as we know it», just before he was eaten by the monster/mutated animal/beast from 20000 fathoms/outer space/centre of the Earth which eventually shambled on to the scene like a refugee from a hard rock group. And at the last moment, when mankind was at its collective last gasp, the young scientist, inspired by his acceptance by the old scientist's daughter, would gasp

something like «But is it possible that it cannot survive sea water/popcorn/apple pie?» or what have you

We are a little more mature now. And possibly rather humbler about man's place in the universe. Either there is life elsewhere or there is not. The three facts of astronomical life are the size of the universe, the sameness of the universe and the age of the universe. If there is no life elsewhere then surely the implication is that we are merely a highly improbable and purely temporary event in its existence. If there is life elsewhere, then the third fact compared with mankind's age implies that we are probably the most primitive natives of the lot. Either way, there is no cause for pride. And either way there is no cause for feeling that we are the hero of the story and not a bit player who can get knocked off without the rest of the cast noticing. Perhaps that is one of the main messages we have for our fellows on our planet

But you know, I still have a soft spot for those dreadful old films of the fifties and almost with nostalgia find myself watching them late at night when ever so often they appear on television. I have not yet seen them with Greek subtitles but I'm sure that will come. Except that after seeing ASTROCOSMOS off to bed at the printers I really do not feel up to watching the late, late show on T V. Some other time.

FLARE STAR DISCUSSIONS AT STEPHANION OBSERVATORY

Eighteen astronomers from Armenia - USSR, Brazil, Bulgaria, Egypt, GDR, Greece, Hungary, India and Norway participated in an excursion to Stephanion Observatory on Monday to discuss questions related to the flare activity of stars. A guided bus trip with a visit to Corinth put a pleasant start on the day, and after lunch at the Observatory the scientific session could start.

Academician V.A. Ambartsumian presented the introductory lecture on Flare Stars in Stellar Aggregates. Problems related to statistical and physical properties of these stars were elaborated further by L.V. Mirzoyan. In a short contribution P.V. Kulkarni discussed the infrared flare activity in the Rapid Burster (1730-333) and the possible relationship to X-ray activity, and C.A.O. Torres compared rotational results for K-type BY Dra stars in the Pleiades to theoretical expectations of rotational braking in young stars. B.R. Pettersen presented new observations of the continuum and emission line behavior during stellar flares, and L.N. Mavridis discussed the long-term variability of flare activity and the quiet luminosity of two well observed flare stars. All contributions were followed by lively discussions and questions. The successful day was organized by professor L.N. Mavridis, and we all enjoyed the relaxed and friendly atmosphere.

B.R. Pettersen

Letter to the editor of ASTROCOSMOS

Dear Sir,

With reference to the article by Mr N. Henbest in the issue of ASTROCOSMOS of August 23, the author makes some manifestations about Mr. Herschel's work which I would like to rectify just for the sake of exactness. Truly, Mr. Herschel presented not one but three telescopes (one of 25 feet and two of 7 ft) to the King of Spain. What I must disagree with in the above quoted article is with the proposition «with» as these telescopes were not a present to the Spanish crown, but the result of an order passed in 1796 for the construction of the three instruments and for which some thousands of guineas were really (or really?) paid.

Thank you for your kind acceptance of this letter.

I remain yours sincerely
M. Lopes Arnoyo

Madrid Astronomical Observatory

EVERYTHING EVER PUBLISHED ON THE CRAB NEBULA

To the Editor of ASTROCOSMOS

You have presented some items on the problem of consistent names for astronomical objects but there is little discussion of an even more serious problem.

Most astronomers would like to be able to obtain a list of all the papers ever published which include information on a particular object (in all its guises) and then select which items cover the particular data they are seeking.

Computers can obviously handle the sorting of these lists — the difficulty is in assembling the information in the first place. Such a scheme would be possible only if an abstracting organisation could easily discover what objects were dealt with in each published paper.

At present all papers have a list of references at the end. Why not also require of objects using accepted names or positional designations plus some standard code letters for each object to indicate the type of information — X-ray intensity, radio spectral index, theoretical model atmosphere, etc. For papers with long tables of objects it would be sufficient to give a cross reference to the appropriate column of the table

If such a scheme was adopted, eventually the lists from all future astronomical papers could be copied straight into the collating computer. It would then remain for some dedicated individuals to work through the previous literature in order to achieve completeness!

Please suppress my name in case I am persuaded to become one of these dedicated individuals!

L'Astronomie

«L'Astronomie» which is the bulletin of the «Société Astronomique de France» celebrated its first centenary in March 1982. In spite of this old age, its readers are always impatient to have news of recent research. So «L'Astronomie» wants to receive any information on subjects of general interest and of particular interest for the amateurs. Please send any information to:

«L'Astronomie»
Rédacteur en chef
Société Astronomique de France
3 rue Beethoven, 75016 Paris, FRANCE