

ONLINE.35 17 images taken by Pawsey in 1958, Paris Symposium, Leningrad, Moscow, Crimea and Central Asia

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Fig. 1 At Nancay radio observatory France, IAU Symposium 30 July to 6 August 1958. Left to Right Ivan Moiseev (1921-2008, Crimean Astrophysical Observatory), Viktor Vitkevitch (1917-1972, Lebedev Physical Institute) and unidentified woman. A decade later (1969), Moiseev and Vitkevitch (along with Matveenko and others) joined with the US group of Kellermann and many others for the VLBI experiment between the Crimea and Green Bank. See ONLINE.35.8.



Fig 2 Before the General Assembly in Moscow (12 to 20 August 1958), a trip to Leningrad . Left to right Prof Roderick O. Redman of the University of Cambridge (UK) (1905-1975) and Prof Alla Genrikhovna Masevich, famous Soviet astrophysicist (1918-2008)



Fig. 3 Large Pulkovo Radiotelescope (Russian abbreviation BPR) also LPRT, the Large Pulkovo Radio Telescope, in Leningrad, photo by Pawsey.



Fig. 4 Secondary reflector of BPR. Naum L. Kaidanovskii (along with Khaykin inventor of this instrument, “antenna with variable profile”) and prominent astronomer Natalya Soboleva (17 July 1935 to 1 January 2012), wife of Yuri N. Pariiskii. Leningrad branch of Special Astrophysical Observatory.



Fig. .3 Pawsey's photograph of the IAU General Assembly in session, August 1958



Fig. .4 Group photo (August 1958) in front of the Lebedev Physical Institute -FIAN (Moscow), radio astronomy group with Pawsey. Left to right: Boris Panovkin, Boris Chikhachev, Pawsey, Viktor Vitkevich and Alexandr Salomonovich.



Fig..5 Moscow IAU 1958, Pawsey met Madam Inna Shcherbina-Samoilova (deceased circa 2009), translator into Russian of the Pawsey-Bracewell book of 1955 *Radio Astronomy* (NRAO ONLINE 53)

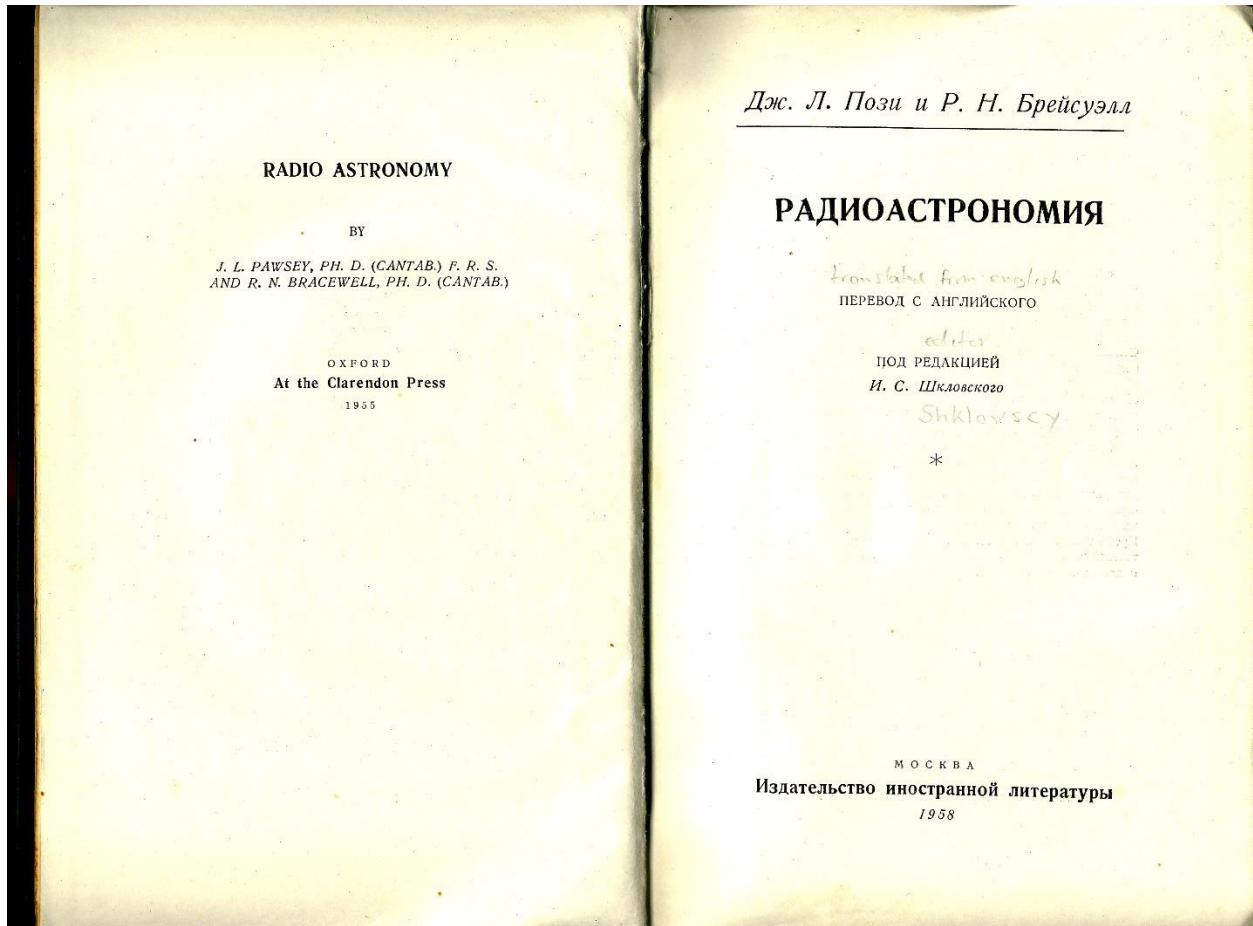


Fig. 5 Title page of Russian edition of *Radio Astronomy*. The faint pencil notes are: (1) translated from English, (2) Editor and (3) Shklovskii



To dear Dr. J.L. Pawsey  
from the Editor of this interesting book  
as a memento of our meeting  
at the 10th Conference of the IAU.

I. Shcherbina-Samoilova.

16/11-59.

Труды астрономического  
Дружества  
в память о педагогах (выпущено)

на X съезде ИАУ

И. Шчербина-Самойлова

16/11-59

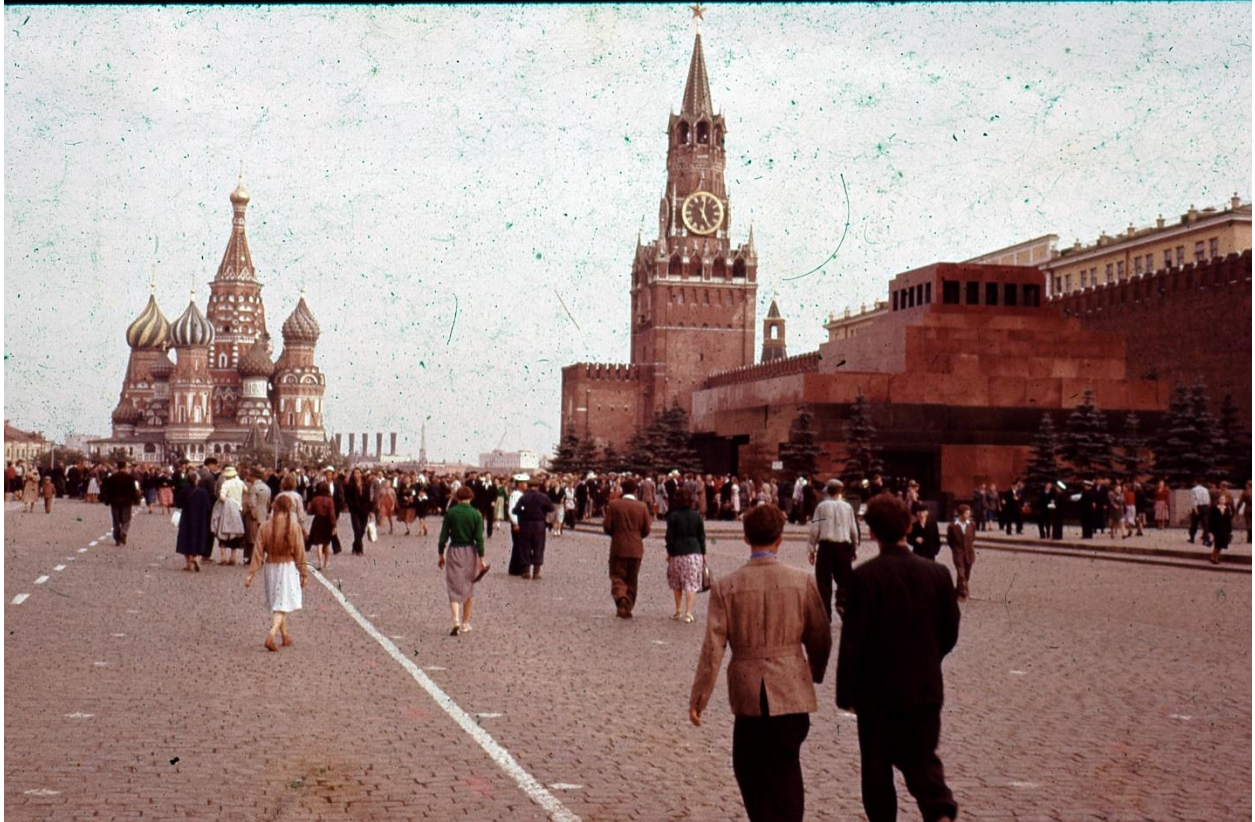


Fig.7 Pawsey's visit to Red Square, the Kremlin and Lenin's tomb, Moscow, August 1958.



Fig. .8 Pawsey's trip to the Crimea. Post IAU, starting the journey back to Australia via India. Pawsey met Ivan Griror'evich Moiseev again standing to the right (man to left unidentified), the director of Radio Astronomy Branch of the Crimean Astrophysical Observatory- CrAO, Katsiveli (from 1957 to the 1980s). The main instrument of this station would later become the 22-metre millimetre radio telescope at the site near Simeiz, (a site near the sea to the west of Simeiz in Golub Bay) completed in 1966. This antenna would be used in the initial VLBI observations with the US as well as extensive mm solar observations. A solar telescope (broad-band corner antenna for a dynamic radio spectrograph) is in the background-see ONLINE.35.



Fig. 9 Arcibo style aerial, 31 m, previously used for the ground breaking Crab Nebula polarisation detections by Arkady Kuzmin and Vyacheslav Udal'Tsov at 9.6 cm in 1957. In 1959, the latter author detected polarisation at 21 cm, with a determination of the Faraday rotation and magnetic field in the direction of the Crab Nebula based on observations of the polarisation at 21, 9.6 and 3.15 cm.



Fig. 10. A solar dynamic radio spectrograph for observations of Type II and Type III bursts at frequencies of 100 to 150 MHz. The time resolution was 0.05 sec. . This antenna would have been of especial interest to Pawsey.



Fig. 11 Group from the Lebedev Physical Institute Radio Astronomy Station at Katsiveli in 1958. From left V.A. Udal'Tsov in white shirt, Roman Sorochenko (?), unidentified , and Yurii Kokurin in front of the laboratory building near the 31-m aerial.

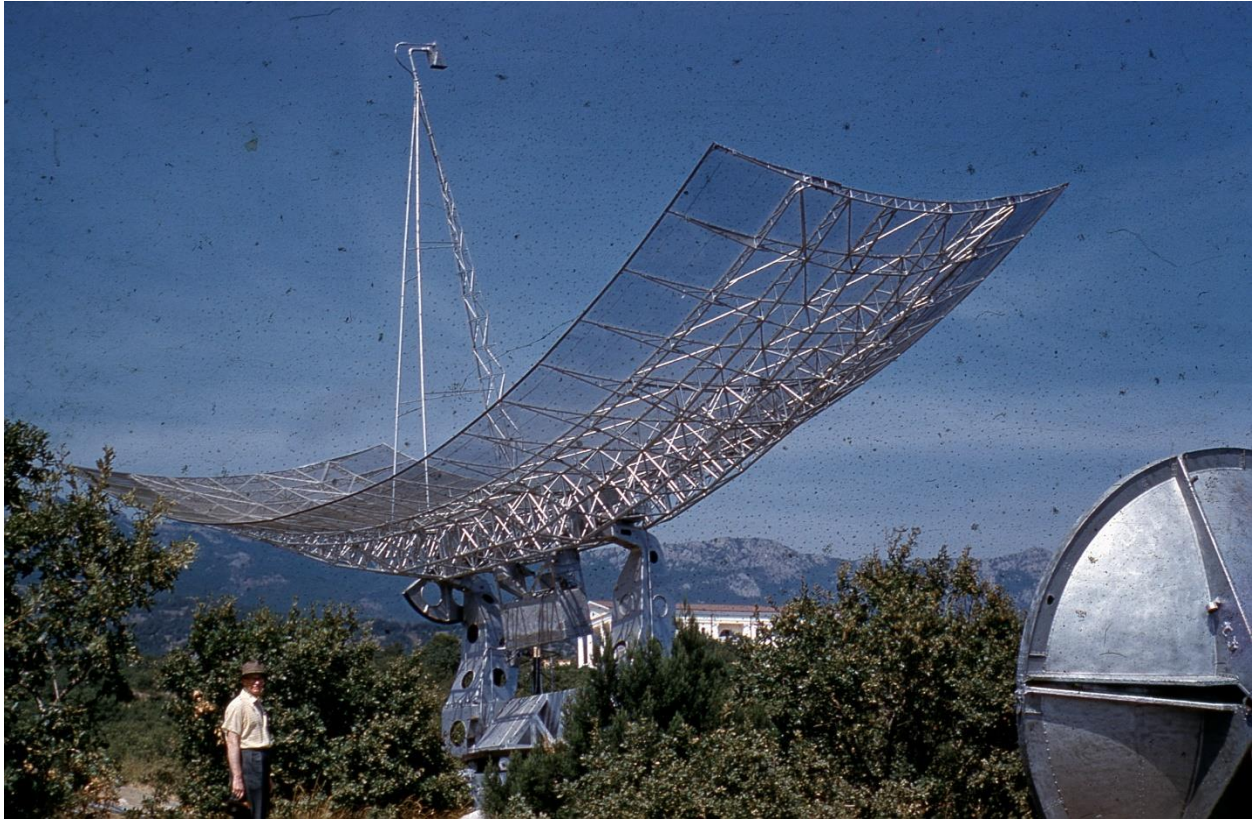


Fig. 12 18m by 8m paraboloid at the Katseveli station used for 21 cm HI observations by Sorochenko and colleagues. The first observations of HI had been made in late December 1955, first successful radio spectral observations carried out in the Soviet Union. By 1954-55, a major series of observations of HI in the Cygnus region of the Milky Way were carried out. This aerial is also seen in the background of Fig. 9.



Fig.13 Pawsey made the post IAU journey to Crimea and Central Asia with Prof Cecilia Payne-Gaposchkin. In the Crimea, she likely visited other groups of astronomers including theoretical astrophysics. At least two luncheon events occurred, photographed by Pawsey. In this group, we can only identify Ivan Moiseev, in conversation with Payne-Gaposchkin, with a red hat. Moiseev is to the our left of the honoured guest.





Fig. 14 The second luncheon, likely at the optical observatory site at Nauchnyi, 110 km to the north at an elevation of 600 metres. In the photo taken by Pawsey: to our immediate left of Payne-Gaposchin (red hat) is Eval Rudol'fovich Mustel and next left is Andrei Borisovich Severny (with cigarette), both renowned astrophysicists. Mustel (1911-1988) was a prominent scientist at the Crimean Astronomical Observatory from 1946 to 1960, then becoming the Director of the Astronomical Council of the Academy of Sciences of the USSR. He was famous for his work on spectra of novae and Type I supernova. Severny (1913-1987) was director of the Crimean Astrophysical Observatory from 1952-1987 (director in 1958 during the Pawsey - Payne-Gaposchkin visit). He was an expert on solar flares and astronomical observations from space.

We thank a number of colleagues for assistance with the identities in the Pawsey photos of 1958: Yuri Parijskij, Adelina Temirova, Sergei Trushkin and Oleg Verkhodanov (1965-2020), Leonid Gurvits, Sergei Gulyaev and especially Rustam Dagkesamanskii of Puschino Astrophysical Observatory. The book *A Brief History of Radio Astronomy in the USSR*, Springer ASSL, vol 382, 2012 editor S.Y. Braude et al. is a remarkable resource.

After Payne-Gaposchkin and Pawsey left Crimea, they travelled to Urgench or Khwarazm in Uzbekistan by air. Their destinations were likely the famous ancient cities of Khwarazm or

Samarkand and Bukhara. After this visit, Pawsey departed to the south to visit colleagues in India (NRAO ONLINE33), on his way home to Sydney.