

## RUSSIAN GUIDES, MEDICAL SCHOOLS AND RESEARCH.\*

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I LOOK back on my recent three weeks in Russia with pleasure and satisfaction. As you will observe, I had the advantage of excellent travelling companionship. Without implying too rigorous an exclusiveness I may comment that doctors travelling in Russia will find a small party advantageous. With the language difficulty and the frequent necessity for an interpreter it would be impossible for members of a large party to obtain the personal contact with the Russians which makes such travel worth while.

Our tour was organised by the Society for Cultural Relations, U.S.S.R. and Britain. This society is a branch in Britain of "V.O.K.S.," an organisation in Russia for promoting facilities of foreign contacts and especially the requirements of foreign travellers in Russia. Their general service is most efficient, and they showed a kindly human feeling for us. They provided us with a charming and capable lady guide who took us under her wing in London and whom we soon addressed as "Ma." When we arrived in Moscow where it had been arranged that "Ma" should transfer her charges to a stranger's care, the family cried out bitterly that they could not proceed south without their mother. V.O.K.S. recognised the pathos of the situation and sent "Ma" on with us and she mothered us all the way. The stranger mentioned above also accompanied us and proved to be a very companionable and intelligent Communist who had spent some years in America and in Scotland and whose conversation was always interesting. The local guides provided were excellent linguists and for the most part pleasing, interesting and intelligent personalities who did everything possible to facilitate our search for knowledge, beauty and matters of medical and social interest. Usually they could be drawn into interesting discussions of conditions in Russia. One observed that they were at first somewhat on their guard against the more aggressive types of foreign tourists, but with a little tact they usually responded well. Only on one or two occasions we had guides who merely sought to convert us from the error of our capital-

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## Russian Guides, Medical Schools and Research

istic ways, or let us understand plainly that such as we were not worth talking to. I should like to stress that this was the only and the very mild unpleasantness we were subjected to and that only on two occasions. It is true that we appreciated that our guides in general showed us and told us of their country's best achievements—but who would expect them to demonstrate their mediocre or worst to strangers? One sometimes became a little wearied of the constantly recurring comparison of pre-revolution and present conditions—but after all we went there to learn about that. Our freedom was not restricted and while our activities were largely arranged with V.O.K.S. and their excellent guides, we could and did travel about without official supervision. It may be noted, however, that our passports were taken over on arrival at any place and returned on our departure as pre-arranged with V.O.K.S., so that we could not have wandered very far without the knowledge of the authorities. The language difficulty also kept us tied rather closely to our guides for our own benefit. The language problem was not so bad at scientific and medical institutions where we found many of the older generation spoke German as an alternative to their native tongue and many of the younger generation spoke English (or "American"!). In the street, however, it was more difficult. Two of us had to find our way home by drawing a picture of St Isaac's Cathedral in Leningrad and showing it to a militiaman, accompanied by the remark "angliski" and gesticulations intended to indicate our disoriented condition. He wrote something below the picture and this we showed to every intelligent-looking passer-by, who would then point us on our way. Eventually, footsore but triumphant, we entered our hotel close by the Cathedral. We had to have a beer which is a cheap drink to natives but cost us 2s. 6d. each at the official rate of exchange. That brings me to financial aspects of the trip. It was inexpensive. It cost us about 35s. a day, which includes the long distance travelled from London, from North to South of European Russia and back, abundant and excellent food, hotels, baggage transport, sight-seeing transport, guides, etc., etc. All these items were catered for by a book of coupons purchased in London. On the other hand the official rate of exchange—25 roubles to the pound—made any purchases in Russia inordinately expensive. Cigarettes, drinks, fruit, etc., cost us about five times their value here. I had been advised to take

## Norman M. Dott

some tinned food with me, but this was not at all necessary, our food tickets providing us everywhere with more than enough of excellent fare.

V.O.K.S. treated me very kindly personally. I desired to break my journey at Moscow, return to Leningrad for some days and then proceed direct to the Crimea. Presumably because my additional travel was in pursuit of Medical Science they charged me only one-sixth of the additional fare incurred. On this journey from Leningrad to Sevastopol which occupied two days I had to make some attempt at conversation with my Russian companions. One such conversation began by my demonstrating by a mock operation that I was a surgeon. The Russian was an official in charge of prevention of fires. He indicated fire by striking a match, and that he prevented its occurrence by spitting on the box and then attempting to strike a light. Eventually we learned quite a lot about each other. He was a very pleasant and cultured person.

"Intourist" is the official Russian travel agency with representatives at all the principal hotels in Russia and with offices in London, Paris, Berlin, etc., etc. We found them highly efficient and they co-operated very well with V.O.K.S. in the management of the tour. As an example of their efficiency one may mention that we were scheduled to sail by a Russian ship from London direct to Leningrad. This ship had been damaged. Another Russian boat which was to call for us had to be deviated at the last minute to pick up the crew of a Russian vessel which had been sunk off the North coast of Spain. Within two hours, Intourist had arranged for our travel via Swedish Lloyd service, Gotteborg, Stockholm; across the Baltic Sea to Aubo and through Finland by Helsingfors to Leningrad. Russia is the home of propaganda and it was not surprising to find that occasion was taken for the public presentation of this rescued crew at the Opera House in Leningrad. The presentation was accompanied by suitable pro-soviet and anti-fascist enthusiasm, enhanced by the sight of their fellow-countrymen and women wearing slings, splints, etc. Again at Moscow I encountered the rescued crew of a torpedoed Spanish vessel. They were being feasted in the palatial restaurant of the new Volga-Moscow canal station. One can hardly doubt that these Spaniards will carry away very favourable impressions of the Land of Soviets, and some of them will act as missionaries of its faith.

## Russian Guides, Medical Schools and Research

I was semi-officially advised not to take a camera with me. It was said that it aroused suspicion and that its use was so restricted by the police that it would be almost useless. I did take it and as you see from the small selection of the numerous pictures obtained which we are showing to-night it was quite worth while. The instrument and I escaped the "G.P.U." quite unharmed—in fact, with the co-operation of an obliging militiaman we obtained a picture of the Police Headquarters in Leningrad! Films were promptly developed by the V.O.K.S. agencies at hotels. They were, however, badly developed. It was obligatory to have the films developed in Russia and they were closely scrutinised and duly passed at the departure frontier. It was understood that no pictures were to be taken of railways, bridges and such like. In some places they did not like one to photograph such landmarks as tall spires—presumably an example of air-mindedness. One could not photograph the Kremlin, though thousands of photographs of it, inside and outside, must exist throughout the world. Nevertheless, in general, and especially if one openly solicited the advice and co-operation of a militiaman, one could use the camera quite freely. At Odessa we visited an Institute of Physiotherapy. Here the inmates could receive mechanical thumps or shakes to any part of their anatomy or learn to balance on their tails on a suitably graded jet of water. The Director received us most kindly, explained to us the thousand and one forms of treatment available there and mentioned (though he did not explain) the profound scientific research into these matters which the institution was prosecuting. Most of all I admired a health propaganda statue. (Such statues abound.) It presented a fine figure of a woman, modestly attired in abbreviated shorts, posing a slightly unusual pattern of tennis racket. Still this statue was really well executed and health-inspiring. I returned next day under official escort to get her picture. Now I was no longer an official visiting party and waited an hour in the street outside eventually being flatly denied permission. The Director could not see me, no photograph could be taken. Returning to V.O.K.S. I found them politely sorry about it but unable to help. Eventually my suggestion of communicating with the Vice-Commissar of health in Moscow (who had received us very kindly) on the subject caused a softening of attitude and after some further delays I did get my lady's picture. I mention

this incident to show the state of political nervousness which exists. I suppose this Director knew that photographs were censored and wished to take no risk that his permission might be disapproved in official circles. This political nervousness is further evinced by the isolation of U.S.S.R. There is little traffic across its frontiers. Incoming literature is closely censored. Foreign mail is censored. Photographs are censored. Internally one cannot shut one's eyes to the somewhat drastic cathartic treatment which political nervousness prescribes for possible disturbers of Russia's regime. The regime is, of course, supported by every possible method of propaganda. It must be said, however, that we saw no signs of interference with personal liberty, and that the people of Russia appeared healthy, happy, well-fed, contented and generally satisfied with social conditions and progress. For ourselves, we had no cause for serious dissatisfaction. I think the only physical hardship to which we were exposed was an olfactory one. The Russian does not quite understand the *modus operandi* of the modern water-closet. This apparatus is freely supplied by the State. The Russian, presumably from fear of deranging these delicate contrivances by blocking the pipes, prefers to collect used toilet paper in a basket or in a great heap in a corner of the apartment. This was greatly appreciated by numerous native flies though not by us fastidious foreigners. We thought a little propaganda on this subject would have been useful. It is, perhaps, right that we should remind ourselves that the modern W.C. is not an ancient institution in Britain, and, indeed, has not found its way to outlying districts yet.

V.O.K.S. arranged for us at Moscow and again on the eve of our departure from Kiev, two very hospitable receptions. They had invited to meet us the very flower of the medical profession. Among Vice-Commissars for health, Directors and Professors, I felt very humble. These men were true and eminent medical scientists and were very kind and interesting. The Moscow reception was called a "Tea Reception"—but starting with 1870 vodka and proceeding to a choice variety of native liqueurs, I do not think we reached the tea.

It is remarkable how little evidence one sees of destruction of public buildings and monuments in a country so recently the scene of a great social upheaval. The Russians are quite alive to their artistic heritage and everywhere one observed

## Russian Guides, Medical Schools and Research

repair and preservation work in progress on such buildings. The Czars still bestride their steeds in the public squares. Remarkable in Leningrad is St Isaac's Cathedral with its huge monolithic pillars. It is used as an "anti-religious" museum. This really means anti-clerical. An example of an exhibit is the showing of the remains of a Saint supposed to be miraculously preserved alongside those of two esquimaux. The simple lesson is that the natural climate of Northern Siberia is quite as effective in its preservative qualities as supposed mystic influences. It seemed that the so-called anti-religious movement was chiefly concerned in exposing mysticism and superstition. It appeared that it has been relatively easy for the Russian to renounce his former creed, overgrown as it was with mythology and superstition, the more especially as Communism and Lenin-worship supply an idealism and hero-worship which the human soul requires. In the Red Square in Moscow there stands before the Kremlin the massive, simple, dignified mausoleum of the great Leader. Lenin's features are quiet and peaceful as he lies clothed in his military uniform. The people pass him in a continuous stream. There is no artificial pomp and no unnatural solemnity—merely a quiet and decent respect. In Kiev the Lavra Monastery is a remarkable group of churches, with orchards between and catacombs beneath. Their gilded domes, curious Russian architecture and beautiful mural paintings made an impressive sight as the evening sun struck across them. The interior decorations—enormously costly gold and silver ikons, cloth of gold vestments, etc., are perfectly preserved. There is fine mosaic work in the church of St Sophia in Kiev. The authorities are expending great trouble and expense in its cleaning and preservation.

The pre-existing public Art Galleries have been considerably enlarged and enriched by the addition of treasures from the palaces of the dispossessed former aristocracy. The Hermitage Gallery in Leningrad possesses among its rich store a series of about twenty Rembrandt paintings which exemplify the artist's various periods. Most impressive of all is the portrait of an old Jew. Some of the prehistoric gold work from Siberia and the South-Eastern States is fine and interesting and tells of early civilisations in these parts. In Moscow the Trejakov Gallery of Russian art contains some fine portraiture which follows fairly closely the styles in Europe

## Norman M. Dott

generally in the last 150 years. Some of the contemporary work is excellent. There is also a section devoted to ancient Russian ecclesiastical painting, much of which is very beautiful.

In the Public Park of Culture and Rest in Moscow some of the modern museums were very interesting and at the same time they fulfilled a purpose for Soviet propaganda. One museum depicted the various nationalities of the Great Union. It was a kind of wax-work showing native costumes and typical local scenes and activities. The section dealing with public undertakings was instructive. In modelled map style the Volga-Moscow canal (now completed) and the Volga-Don canal (nearing completion) are shown. These works will permit 4000-ton vessels to reach Moscow from the Black Sea. Here, too, was a model of the projected Palace of Soviets—a towering "sky-scraper" surmounted by an enormous statue of Lenin. We saw the foundations of this ambitious structure being prepared in Moscow. An Arctic Museum was very well carried out, showing models of discovery ships and aeroplanes, native dress and customs, natural flora and fauna, and artificially selected and acclimatised modern crops. Somewhat more sinister to my mind was the exhibition of Stakanovite methods of production—the inventions and devices of certain "super-artisans" for increasing individual industrial production. I thought that Henry Ford had not lived in vain. These Stakanovite workers rank high in Russia to-day as public heroes and heroines.

In art galleries and museums one encountered numerous groups of young artisans and of children receiving instruction from special teachers. The modern Russian, at least in the larger cities, does not lack opportunities for culture and for the acquisition of useful general knowledge. Moreover, so far as I could judge, he appeared willing, anxious and active in the pursuit of these improving influences.

I have said that V.O.K.S. provided an excellent programme of general and of medical sight-seeing for us. They were, however, obviously unaccustomed to cater for medical specialties and hardly understood their significance. We had previously been invited to enumerate those things we particularly desired to see. It was soon evident, however, that although most anxious to help us V.O.K.S. had not arranged for us to see the best work in our various specialties. In neurology, neuro-surgery and neuro-physiology, for example, in which I was

## Russian Guides, Medical Schools and Research

interested, no special items were suggested at Leningrad. When I asked to see work at the Pavlov and Bechterew Institutes I was informed that only persons of special standing or with special credentials could be admitted there. So I wrote a letter of application stating that I was a pupil of Schaefer and of Cushing, etc., etc., and, in fact, blew my trumpet as loud as possible. The gates opened, and I was most kindly received. However, so much time had been lost that, as mentioned above, I made special arrangements to return to Leningrad to see the work there more thoroughly. It would be wise for any medical specialist visiting Russia to make full inquiries from the Foreign Department of the Commissariat of Health regarding the best centres and authorities to visit in Russia and to have such visits pre-arranged for him.

In Moscow we were received at the Commissariat of Health by Vice-Commissar V. C. Proper. He is an eminent neuro-physiologist and has worked with Adrian in Cambridge and in Holland and in America. He is an enthusiast in his own work—yet he is Vice-Commissar for Health in U.S.S.R. We met several other high officials in the health ministry. Each was an eminent medical clinician or scientist rather than a politician. We ceased to wonder why Medicine is progressing satisfactorily in Russia.

We learned that Medicine is a state service, free to all. The population of U.S.S.R. is about 185 millions. They have 106,000 qualified medical men and women (pre-revolution figure, 19,000). They estimate that they require 200,000. There are now 75 medical teaching schools in U.S.S.R. (pre-revolution, 16). These schools at present produce 9000 graduates yearly (pre-revolution, 900). There are at present about 90,000 medical students in U.S.S.R., about half men and half women. The medical schools are under the Commissariat of Health (not Education). The training of the medical man is thus brought into line with the training of apprentices in an industry. His education, however, does not lack breadth of view, nor proper academic foundation.

Doctors work an official five-hours day for the State for about 400-500 roubles per month. Since at present there is a shortage of doctors they are permitted to do one and a half or even two "jobs," and thus earn about 800 roubles per month. I make this equal in purchasing value to about £14. He

## Norman M. Dott

receives free holidays, free education for children, free or very cheap access to theatres, concerts, etc., etc. In most cases the doctor's wife is working too, usually earning an approximately equal income, either as a doctor or in some other vocation. Private luxuries are few. Housing accommodation (outside hospitals) is cramped and of poor quality. The doctor is held in high esteem and respect. His social status is good.

General practice is not materially different from here. It is worked on the Dispensary system. A Dispensary serving a town district will have seven to nine of a staff, who see patients at the Dispensary and visit them in their homes as required. Patients may choose their own doctors as here, and as a rule, one doctor will attend members of the same family. It is said that the medical profession has a system of "self-criticism"—a disciplinary organisation of medical inspectors and committees, elected by the profession. In the case of unorthodox methods of treatment, a doctor, if criticised by his superiors, has the right to appeal to a scientific committee of the Commissariat of Health.

It seems that the notorious Soviet Abortion Clinics were organised at a time when large sections of the population were starving. It was a simple and practical means of meeting a grave national situation. At present national economic stability has been regained, food is plentiful and export is beginning again. The regulations concerning abortion are now very much as in this country. One gathered that, whereas, in the early post-revolutionary period, industrialism was of necessity the most highly valued and paid work; now, with returning relative prosperity, the amenities of medicine and the cultural influences of the arts are the most highly valued and command the best payment.

In the U.S.S.R. there are about 400 "Medical Institutes," that is, places for medical research and scientific teaching. They may be divided into Clinical, combined Clinical and Scientific, and purely Scientific.

A good example of the clinical research institute is the Traumatological Institute of Leningrad. It is a hospital of 80 beds with a large expert staff. This is the central Institute for this particular research for the Union. Its statistical department assembles figures for injuries incurred in various industries, in agriculture, transport, etc., and these are passed

## Russian Guides, Medical Schools and Research

to the Commissariat of Health, who organise inquiries into the causation of such injuries and take energetic steps to remove remediable causes. One gained the impression that here was a scheme set up with breadth of vision on a large scale, and with the necessary power and energy behind it to accomplish something effective. Certain clinical problems—*e.g.*, some particular type of fracture—are selected for special study, and cases of this type are selected for and concentrated at this hospital. When they feel that they have advanced and mastered the problem as far as possible they publish their results and in particular send out pamphlets embodying their findings to all hospitals in the Union who may have such cases to deal with. They have a system of orthopædic dispensaries served from the main hospital, not unlike the system of orthopædic clinics which has been worked out in this country. Large numbers of post-graduates are instructed here—about 1200 per annum. These doctors are paid and their families adequately provided for during post-graduate study periods. It was interesting to note that they were not too narrow in their outlook. In discussing selection of cases for admission, Professor Marshansky, the Director, remarked that a few days ago they had operated on a case of strangulated hernia which had been brought in off the street in their neighbourhood. He remarked, "After all, we are doctors and he is a sick man." It was obvious that a surgeon doing good work was not unduly hampered by officialdom. For, in this "traumatological" hospital, I saw interesting groups of cases of congenital club-foot and of cleft palate. Marshansky himself was interested in neuro-surgery and had a number of brain tumour and trigeminal neuralgia cases in. He was carrying out an anterior cordotomy at the upper cervical level for the relief of athetosis and torsion spasms (following Putnam of Boston), with considerable success. Marshansky is an enthusiast and was so kind as to teach me this operation on a cadaver in the anatomy department after a strenuous day's work in hospital.

Medical Research now has its central institute called "V.I.E.M." in the capital, Moscow. Nevertheless, for the present, and I should suppose for many years to come, the active and true academic centre is in its traditional home in Leningrad. Under the new organisation the Leningrad Institutes are considered a branch of V.I.E.M. in Moscow. There is a third branch in Sukhum in the South-east,

## Norman M. Dott

where a sub-tropical climate facilitates study, utilising apes and other creatures of warmer climates. This huge organisation employs a medical personnel of 2200, of which 800 are engaged in purely scientific research, the remainder in combined clinical and laboratory work. The budget is 47 million roubles per annum. They give three-year fellowships to promising graduates and from these recruit their permanent staff. From the senior staff a few members are sent out each year to take up directorships in important centres of medical activity throughout the Union.

For the central Moscow division of V.I.E.M., a new building is being constructed. A grant of 100 million roubles has been allocated for the purpose. An important feature is to be the combination of extensive scientific laboratories and clinical hospital accommodation in one institution. Plans of research appeared in general to be conceived with great breadth of vision. They were on the whole of a practical and often topical character. Many had in view direct clinical applications. There was, perhaps, something of a tendency to grandiose conceptions, to over-organisation of departmental collaboration. One felt at times that not all of this would bear fruit and more might be left to natural development and opportunity, and that the result might be healthier and more practical without so much artificial forcing, preparation and building of airy castles. It is to be said, however, that the medical scientists of Russia are being given better opportunities to produce good work than in any other country I know. The equipment available to them includes the best scientific apparatus from Britain, Germany and America. Their conditions of work are well-nigh ideal. They have but to show earnest endeavour and reasonable capacity and they are supplied with a lavish hand. It is surprising, too, in a newly organised social state, that the expenditure is made so wisely. We saw but little of what we could consider wasted expenditure. The men occupying responsible positions were of first-rate quality. This satisfactory state of affairs is, I judge, traceable to the Commissariat of Health, which seems to be composed of eminent practical medical clinicians and scientists.

Personally I was especially interested in the Pavlov Institute in Leningrad. Academician Professor Orbelli has followed Pavlov here. His personal work on the autonomic nervous system is well known, and I was specially interested to see

## Russian Guides, Medical Schools and Research

his experimental production of exophthalmic goitre in monkeys by phrenic-sympathetic nerve anastomosis and his analysis of the factors concerned. His studies on the reactions to pain and especially the endocrine factors concerned are noteworthy, as are his studies and conclusions regarding the rôle of the sympathetic nerve supply in influencing muscular tone and contraction. He has about 100 collaborators working under his direction, and is a masterly organiser. He introduced us to researches in progress on genetic and environmental studies on canine mental types as assessed by study of their conditioned reflexes; and on replaceability of cortical functions in the dog as studied by its conditioned reflex reactions. We visited the dog colony in the country, some ten miles out of Leningrad. This research centre is being greatly enlarged and a psychopathic institute is being constructed in its vicinity with a view to co-relating clinical psychiatry with experimental psychophysiology. Orbelli was extremely kind, giving me six consecutive hours of his valuable time and sending me off with a great bunch of flowers from Pavlov's garden at Koltushy.

At the Von Bechterew Institute in Leningrad Professor Vasseliev was equally kind. He is an electro-biologist, and showed me the most interesting work on the effect of the electrical charge of the atmosphere on nervous activity; on the electrotonic effect of poisons on the heart and respiratory centre and how these could be offset and their effect removed by local application of anode or cathode as required; on electrical necrosis, etc., etc.

It seems that politics have little to do with medical science in U.S.S.R. Pavlov himself was much opposed to the Soviet regime, though with improving facilities for his work he is said to have softened towards it in his later years. It is evident that an able medical worker, clinical or scientific, is recognised by the State as a valuable asset and is treated accordingly.

The Ukraine—an independent Republic of the Union—has an independent medical research institute similar to V.I.E.M., situated at Kiev. Here the director is Professor Bogomoletz—a noted authority on colloidal chemistry and a serologist.

Lastly I may mention the general hospitals, of which I visited several in Leningrad and Moscow. They were generally efficient. Nurses work a six-hours day. (Five out of six days.) They are State registered and a fully recognised

## Norman M. Dott

profession. They have "assistants" who do much of the rough work of the wards, and the less skilled items of attention to patients under the nurses' direction. Most of the nurses live out at their own homes or in private lodgings. Many of them are married women. The proportion of nurses to patients is only a little more than half that generally obtaining in our general hospitals. Senior or head nurses live in the hospitals. Similarly, the more junior members of the medical staff sleep outside the hospital. The senior members reside in the hospital, so that one or more of them may be available in case of emergency. Night duty is taken by juniors, who sleep in hospital by rotation. Surgical wards have attached single rooms for the immediate post-operative period and for the seriously ill or dying. These patients are supplied with individual nursing. Similarly, there is a special room for dressings, which are not carried out in the general wards. The hospitals have a cheerful, friendly aspect. The walls are relieved by pictures. There are pleasant growing flowers in pots or bowls suitably disposed in halls, corridors, etc.

I think the Russians have proved an important thing—that people will work well for honour, for the ideal of social duty, for prestige or for power, and that they will do so without the inducement of any considerable personal gain in money, property, etc. An inestimable advantage which they now possess is security of employment and personal security and that of dependents in the events of illness, old age, etc. For the present, at any rate, an enlightened governing body encourages social advancement in all directions and especially in general culture, arts, sciences, etc. Their system places them in a position to control reasonably the production of medical graduates or any other profession or commodity according to the ascertained requirements of the country or of world markets.

Their present disadvantages as I saw them were their isolation and other manifestations of political nervousness or insecurity, a certain tendency to undue forcing of labour, a tendency to over-planning and over-organisation, and their rather low, though rapidly improving, general standard of living.

*(This Series to be continued)*