D. N. Wadia:
A BIOGRAPHICAL SKETCH

Dr. D. N. Wadia's short life-sketches have from time to time appeared in scientific and cultural journals. While bringing out this special number we have great pleasure in presenting this comprehensive account of the foremost Indian geologist whose versatile interests cover such wide fields as stratigraphy, tectonics, palaeontology and economic minerals.

Darashaw Nosherwan Wadia, to give his full name, was born on the 25th of October, 1883 in Surat, a historical city on the western coast of India, once a flourishing port, which, in its decadence, was mainly inhabited by middle-income families. A branch of the Wadias, originally a clan of ship-builders of the East India Company was left behind in Surat and other smaller towns of Gujarat while the rest had ventured out to the rising city of Bombay as pioneers in industry, commerce and liberal education during the latter part of the last century.

Being the fourth child in a family of nine children and lacking educational facilities at the small Western Railway Station where his father was posted as Station Master, Surat was decided as a better place for the child's upbringing. Here 'Dara', as he was affectionately called by the family, spent the early years of schooling under the care and discipline of his rather strict maternal grand-mother. Like scores of other boys of his age, young Dara acquired a typical "Anglo-Vernacular" education, first at a private Gujarati school and later at the Sir J. J. English School in Surat up to the year 1894. Family members still relate childhood instances of his inquiring mind manifesting a scientific bend.

When he was twelve years old, the family moved to Baroda which was to be his home town for many years: it was here that the formative period of his life was profoundly influenced by his eldest brother, the late Munchershaw N. Wadia, a reputed educationist of Baroda State. Fond of formal education which he was receiving at the Baroda High School, life on a railway settlement and the company of an artist neighbour alternately fascinated young Wadia. He responded, all the same, in full measure to his educationist brother's efforts. To him he owes not only his abiding love for science, but devotion to knowledge as such, inspiration for higher learning and, above all, a rational outlook on human relationships—qualities which were to be his characteristics in later years.

In 1905, having obtained his B.A., B.Sc. from Baroda College with Natural Science, botany and zoology, he had already served as a lecturer in the same College (now Baroda University). Guided by the then Principal of the College, a keen naturalist, the late Professor Adajee M. Masani, he took up the study of geology, a subject so far quite neglected in India by the universities and scientists alike and even the rudiments of which had then to be self-taught. But for the enlightened Ruler of Baroda State, the late Maharaja Sayaji Rao Gaekwar, whose zest for progressive education provided Baroda with a Museum of Geology, it would not have been possible for Wadia to obtain a Master's degree in the subject of his choice.

A year after this the fresh graduate got his first appointment as "professor" of Geology, Prince of Wales College, Jammu, Kashmir. It was a far cry from Gujarat in those days, but he benefitted by the company and influence of the late Fram Dadina and the late S. Robson, two successive Principals of the College and eminent educationists of Sind and Punjab. Though keen on sports and having to teach other subjects including Shakespeare, the young "professor" devoted many years to investigating the problems which immediately confronted him. His study of local geology and the problems presented by the foothills of the Himalayas was an effort entirely self-directed. All his holiday tours from 1907 to 1920 provided him with ample material to understand many interesting features of the geological structure of India and to collect sufficient evidence
Dr. Wadia replying to felicitations and biographical account presented by Dr. M. R. Sahni, President, Palaeontological Society of India, on 3rd July 1957. From right to left: Dr. D. N. Wadia, Prof. N. N. Chatterjee, Secretary Geological Mining and Metallurgical Society of India, and Dr. M. R. Sahni.

(Courtesy: Indian Mining Journal)
in support of his theories about it. Domestic difficulties and bereavement did not daunt his spirit. In 1919 he produced his "Geology of India" (Macmillan, London), a bulky manual of the geological formations of India which brought him fame in the stratigraphy and tectonics. During his recess season at Calcutta, he lectured at the Presidency College or at the University and was one of the founders of the Geological Society of India of which he later became the President.

![Photo: B. Sahni](image)

Dr. D. N. Wadia in Kashmir

His second tour abroad in 1935 included China, Japan and the U.S.A. where he visited universities and geological surveys, establishing valuable contacts with prominent geologists of Yale, Berkeley, Stanford, Pasadena, Peking and Tokyo. In 1937, at the request of the Secretariat of the Moscow International Geological Congress, a paper on the "Tectonic Relations of the Himalayas with the North-Indian Foreland" was presented at the Congress. This, along with a paper on the "Palaeoclimates of Kashmir Region", was translated into Russian.

On retirement from the Geological Survey of India in 1938, he was offered the post of Government Mineralogist in Ceylon. While referring to Ceylon early in 1909, as a 'graceful pendant' of the Indian Peninsula in his very first geological article, "The Story of a Stone"—perhaps the only one where he indulges in a popular style of writing—little did he imagine that he would, one day, be called upon to disentangle the structure of that very region! During the next six years of investigation and intensive field work for the Government of Ceylon, his papers on the mineralogy and physiography of Ceylon were published.
His study continued to inspire his past pupils and co-workers in India and elsewhere. His guidance proved useful to the Ceylon Geographical Society and to the Ceylon Science Association and other scientific institutions as well as to scholars of the rising generation. In recognition of this the Royal Asiatic Society of Ceylon conferred on him its Honorary Fellowship.

In recognition of his work on the tectonics and trend-lines of the Himalayan axis, Dr. Wadia received the “Back Award” of the Royal Geographical Society, London, in 1934, and in 1943, the Geological Society of London awarded him the “Lyell Medal”. Personal misfortunes did not deter him from quest for truths of nature which he describes as the goal of science in one of his Presidential Addresses at the Indian Science Congress. Twice General President of the Indian Science Congress (1942 and 1943), he has subsequently been the President of the National Institute of Sciences of India (1945-46), Mining and Geological Institute of India (1950), Central Board of Geophysics, Government of India (1954-57), Geographers’ Association of India since 1955—offices which he filled with scholarly charm and dignity. During this period he served, from time to time, as Chairman of several Scientific Committees of the Council of Scientific and Industrial Research of India.

Since 1944 Dr. Wadia has been Adviser to the Government of India. When the country lacked a mineral policy as such to safeguard her mineral interests, Dr. Wadia, in his capacity as Geological Adviser, was largely responsible for initiating and formulating the mineral policy of India for the proper conservation and utilization of her mineral resources. As a sequel to this the Indian Bureau of Mines was established in 1947 and he was appointed its first Director. For the last eight years he has been actively associated with the Atomic Energy programme of the Government of India as its Geological Adviser. The Raw Materials Division of the Commission constituted in 1949 was developed under him into a well-knit unit of 470 geologists and geophysicists, mining and drilling personnel.

Dr. Wadia received the Honorary Doctorate of the Delhi University in 1947. He has always called himself with justifiable pride a pure Swadeshi product having never taken a degree at a foreign University. In his scientific investigations, whether it is a problem in pure geology or mineralogy, survey or exploration of strategic minerals, oral exposition of a scientific theory or administrative technique, his work shows a flair for initiative and diligence for details. While his merits have been recognised both at home and abroad by scientific bodies, e.g., The Royal Asiatic Society of Bengal, Indian Association for Cultivation of Science, Geological Society of America (Hony. Correspondent), his recent election as Fellow of Royal Society has been greeted in scientific circles with appreciation, an honour long overdue.

Dr. Wadia’s publications number over 85 (as per attached list) covering a wide range of geological and allied subjects: regional geology, palaeontology, orogeny, oil geology, mineral economics and policy, soil science, Asia’s desert zones, physiographical studies, geophysics, atomic minerals, etc. Amongst the many noteworthy ones are: “Syntaxis of the N. W. Himalayas”, “Geology of Nanga Parbat and Gilgit District”, “Structure of Himalayas”, “India’s Mineral Potential—Metals and Economic Minerals”, “Cambrian-Trias Sequence of Kashmir”, “The Support of the Himalayas”, “Desiccation of Asia”, “Three Superimposed Peneplains of Ceylon”. His works faithfully reflect his talent and temperament. Precision of statement, methodical exposition of the subject and facility of expression have been the characteristics of his writings. He has refrained from producing a popular appeal or striving after effect lest they sacrifice scientific accuracy.

Having spent many hard years of field life under strenuous conditions, Dr. Wadia has developed an ability for physical endurance and austerity. An indefatigable worker for months on end, he would leave his camp at day-break for a good 20 miles traverse on foot in trackless mountains or a much longer ride on mule or horse-back, a late lunch, his first meal of the day. With passage of years work became tantamount to life itself. “The best work has been produced with the least number of amenities” is his favourite dictum and he brings to
bear it on his survey organisation, at times rather ruthlessly. Austerity for young field geologists, such as plodding the ground on their own feet, has been the burden of his advice. While his field assistants sometimes find his standard of austerity rather exacting, they try to live up to his example. They pick up along with his scientific findings new hope and inspiration in their arduous task. His unassuming ways and desire for obscurity have sometimes led to unusual experiences. An amusing situation arose during his field years in Namunukula, Ceylon, in 1942 when he was reported to the police as “a lonely khaki-clad figure silently hitting every stone in the neighbourhood”.

Dr. Wadia has few hobbies as such but has continued to be a prolific reader—a practice he developed in his college days under the inspiration of his eldest guardian brother. The long tale of his scientific travels has been supplemented by his observations on socio-economic developments which bear the stamp of an unbiased, rational mind, an experience shared by his wife who has been his constant companion and acting in fact as his travel secretary. Austerity and lack of hobbies in the conventional sense of the word are ascribed by his associates to an ability—an acquired attitude of mind—to do without artificial aids to work at one end and an illusion of relaxation at the other.

Dr. Wadia has represented India at various international conferences generally leading the Government of India delegations on mining and geological matters. In 1946 and 1948 he represented India at Commonwealth Mineral Conferences for discussion of mineral and economic policy of the Commonwealth units. In 1948, he attended the International Geological Congress at London and the meeting of the International Union of Geodesy and Geophysics at Oslo, Norway, at both of which he contributed papers. At the invitation of the State Department of the U.S.A. in 1951, he undertook a geological tour. Sponsored by the American Bureau of Mines and the Geological Survey of the U.S.A., it gave him an opportunity to observe trends of modern American advancement in the fields of geology and mining. Among the large number of institutions visited by him were the atomic laboratory establishments, oil fields and refinery, shale oil productions, metal mines, geological Faculties of prominent U.S.A. universities, seismological laboratories, the bureau of standards, etc. In between he headed the Indian Delegation to the First World Metal Congress at Detroit.

In 1953, he was asked by the Govt. of India to lead a delegation of four geologists and mining officers to the Melbourne meeting of the “Empire Mining and Metallurgical Congress”. During a tour of the various mining and metallurgical research centres of Australia arranged by the Congress he become acquainted with the rapid strides made there in recent years, particularly in mining, processing and fabrication of lead, zinc, copper, uranium and lignite.

The Atomic Energy Commission of India was strongly represented at the International Conference convened by the United Nations Organisation at Geneva in August, 1955 under the Presidency of Dr. Homi J. Bhabha who also led the Indian Delegation to the Commission. As a representative of the Commission, Dr. Wadia submitted a paper on “Natural Occurrences of Uranium and Thorium in India” and presided over the Section of the Conference dealing with the prospecting of uranium and thorium, modern methods of survey, etc.. At this momentous gathering of 1100 scientists, perhaps unique in the history of science, he had the benefit of scientific contacts and exchange of information on the one absorbing subject of the Conference, the ‘peaceful uses of atomic energy’.

To advise on the Egyptian Govt’s atomic minerals programme he was recently deputed by Govt. to Egypt where he made an intensive two-months tour in desert zones surveying the possibilities of atomic mineral exploitation in the country.

Self-made, self-taught and self-disciplined Dr. Wadia is a man of few words. Quiet and retiring but of genial temperament, he, in his seventy-fourth year, is actively engaged in expanding the field of atomic mineralogy of India and in revising the fifth edition of his “Geology of India”. Whether in the field or at his office desk or in his study at home, taking even an off
chance to meet Dr. Wadia is an act of faith for his callers. It may be a geologist seeking clarification of a phenomenon, or an expert in an allied field needing consultation, or a student seeking advice on a scientific career, or a foreign scientist passing through—meeting Dr. Wadia is to them almost a geological pilgrimage. A devotee of knowledge for 50 years behind him, he looks 50 years ahead in working on scientific programmes for India.

It is said that even a long and brilliant career is like a momentary flash in the vast complexities of civilisation; but Dr. Wadia’s has been a contribution, rich in its contents and significant in its results. His attitude to life and work has been strictly rational. Whether it is praise or criticism of his work he interprets it as one continuous scientific process. He has never allowed the politics of science to touch him and it has, in turn, never influenced his judgment. It is the same rational outlook that has carried him successfully from job to job, from research to writing and from advice to action. May he enjoy many years of good health and useful work!

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