

THE PENNSYLVANIA STATE COLLEGE

SCHOOL OF MINERAL INDUSTRIES  
STATE COLLEGE, PENNSYLVANIA

*Whitten am 19.3.48*

*Sander*

DEPARTMENT OF EARTH SCIENCES

GEOLOGY  
MINERALOGY  
GEOGRAPHY  
GEOPHYSICS  
GEOCHEMISTRY  
METEOROLOGY

February 13, 1948

Herr Professor Dr. Bruno Sander  
Geological Institute  
University of Innsbruck  
Innsbruck, Austria

My dear Dr. Sander:

I am writing you this letter after a series of conferences with Professor and Mrs. Knopf and Dr. Earl Ingerson. I am a former student of Dr. Knopf, having studied at Yale together with Dr. Ingerson and, at the present time, I am Professor of Petrology and Head of the Division of Mineralogy at The Pennsylvania State College. It is in this capacity that I am taking the liberty of writing to you.

Although my speciality is the petrology of sedimentary rocks, I have been for years a great admirer of your work on petrofabrics, and, of course, your extraordinarily valuable contributions to the petrology of limestones and dolomites. After a series of talks with Mrs. Knopf and Ingerson sometime ago we came to the conclusion that possibly you might be interested in coming to the United States for a couple of years as a Visiting Research Professor.

The budget of our Department at the present time is in the process of being prepared, for the next two years, and I thought that if you would consider it possible to accept such a position with our Institution, I might be able to obtain, without too many difficulties, the necessary appropriations from the Administration of our University.

The Pennsylvania State College is the State University of the Commonwealth of Pennsylvania. The College is divided into a series of Schools. Our total student enrollment at the present time is in excess of 10,000, of which over 500 are enrolled in the School of Mineral Industries. Our School of Mineral Industries has a reputation of being one of the two strongest institutions of its kind in the United States. Although the emphasis of the School as a whole is technological (since we are the equivalent of a Bergakademie) nevertheless, in the Department of Earth Sciences we do carry, in addition to our applied work, a large amount of basic fundamental research in the fields of pure geology, petrography and mineralogy. We have in this field, at the present time, over 20 graduate students studying for a



doctorate and other advanced degrees.

Our Academic Staff teaching Mineralogy and Petrography at the present time is as follows:

(1) Dr. E. F. Osborn (Ph.D. California Institute of Technology, 1937). Head of the entire Department of Earth Sciences, Professor of Geochemistry (formerly of the Geophysical Laboratory at Washington), Specialist in Geochemistry and high temperature igneous petrography with emphasis on synthetic compounds.

(2) Dr. T. F. Bates (Ph.D. Columbia, 1942), Assistant Professor of Mineralogy, Specialist in X-ray work and particularly in developing the electron microscope for morphological studies on clay minerals and hydro-micas.

(3) Dr. J. C. Griffiths (Ph.D. University of London, 1940), Assistant Professor of Petrography, Specialist on sedimentary rocks with emphasis on textural studies of sandstones and oil field petrography.

(4) Myself (Ph.D. Yale, 1936), Professor of Petrology and Chief of the Division of Mineralogy, Specialist in basic problems of sedimentology, the classification of sedimentary rocks and mineralogy of sediments.

In addition, we have in Mineralogy and Petrography, nine instructors, research assistants and graduate assistants of different kinds, most of them young men of great ability and promise. One of our very best graduate students is highly interested in petrofabrics and we shall be glad to make him your personal assistant.

Geology is taught by Professor F. M. Swartz (Ph.D. John Hopkins, 1927) Specialist in micropaleontology and Silurian Stratigraphy, and Associate Professors Robinson, Allen and Ridge.

Our Division of Mineralogy and Petrography is extremely well-equipped. We have a collection of microscopes and they are of the research type, both German (Leitz) and American (Bausch and Lomb and Spencer), thermal analysis and centrifuging equipment, the most modern X-ray diffraction apparatus for both qualitative and quantitative examinations and an electron microscope which is operated directly by us. We also have one Bausch and Lomb Universal Stage but it is not particularly good and if you were to come it would be best if you could bring several of your own stages.

Unfortunately, our School is very crowded. We are on the point of constructing a new building but this will take at least two years and, hence, will not help us at the present time. Since the end of the war our faculty has been increased by approximately 35% in order to take care of the very large increase in the number of our students. As a result it is not certain whether it will be possible for us to provide you with an individual private office. I will try my very best to arrange for this but the possibility is not excluded that we may do no better than to have one office in common for you and another of our professors.



State College is a very nice small town with a population of about 8000. Our city, which contains the University and nothing else, is located in the mountains of the Appalachian Region. The scenery is lovely and the climate is very pleasant. Like all cities in the United States, and in the world for that matter, State College is greatly overcrowded at the present time but we would take it upon ourselves to provide you with an acceptable apartment for you and Mrs. Sander and your daughter.

Our University is located in an area of sedimentary rock which extends from the Middle Cambrian to the Upper Pennsylvanian. This area includes a large number of graywackes which show interesting incipient sub-metamorphism, and one of the most complete typical limestone and dolomite sections in the United States. Typical metamorphic rocks begin about 125 kilometers east of State College and, should you desire to study these, we would make available for you the necessary automobile transportation. One of the research projects that we are carrying at the present time deals with diagenetic and sub-metamorphic changes in our Ordovician and Devonian graywackes as studied on a regional basis extending from Western Pennsylvania, where these rocks actually are producing petroleum, and passing into Eastern Pennsylvania where they have been metamorphosed into slates, phyllites and schists. Extremely complicated large scale faulting and structural deformation marking the border between the Appalachian structural province and the Allegheny Plateau can be easily studied within 10 to 30 kilometers of State College.

Under separate cover I am sending you, also by Air Mail, a few pamphlets, catalogues and descriptive literature dealing with our University and a few of my own publications.

We would like you to come to The Pennsylvania State College as a Research Professor in Structural Petrology for a period of two years. If, however, your plans are such that you feel that you can come only for a one year period, we would be willing to have you also for this time. Future possibilities, after those two years, as to whether you want to return to Austria or stay in the United States could be discussed toward the end of this period. As I mentioned before, I am on the point of presenting my budget for the coming biennium and, in order to ask the authorization for the necessary appropriation, it will be necessary for me to have your consent or at least a statement from you that you are interested in principle in this position. I have already obtained the preliminary approval of the Head of the Department and the Dean of our School and, once I have received your consent, we shall take this matter up with the President of the College. Should the decision of these higher authorities be favorable, I shall make you an official and formal offer to that effect.

We probably could offer you a salary of \$5000 per annum. This salary would begin on July 1st of this year but, since we would not expect you to arrive in this country before the middle of September, the income for these first two or three months should be adequate to provide for the cost of the steamship fare for you and your family. Naturally, I shall take it upon myself to arrange for all the formalities and difficulties that may come in connection with the granting of the necessary visas for you and your family.

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February 13, 1948

If you are interested in this possibility, it will be necessary for me, at the time when I take up the matter of your appointment with the President of the College, to have the following information.

- (1) Institution and date at which you received your degrees
- (2) Medals and prizes
- (3) Memberships in societies (preferably honorary foreign memberships)
- (4) Number and nationalities of foreign students who have gone to Innsbruck to study under you.
- (5) Lectureships, including foreign lectureships such as your trip last year to Sweden.
- (6) A list of your publications.

I want to apologize for putting you to this trouble since, insofar as I am concerned, your reputation is more than sufficient and none of this information is needed for myself. However, according to accepted procedure, such data is to be submitted in discussing the possible appointment of a Full Professor.

Should all of this finally lead to your visit to State College, we hope that you may possibly engage in the following:

- (1) Teach one advanced course for graduate students in Petrofabrics or Structural Petrology.
- (2) Conduct at some other times a similar advanced seminar or course in Metamorphic Petrology and Geology
- (3) Do any research work of your own choosing in these fields.
- (4) Give to other members of the faculty the benefit of your experience and counsel in problems of petrofabrics, crystal deformation and metamorphism.

I hope sincerely that this correspondence shall lead eventually to your coming to our Institution and honoring us with your presence and your teaching.

Sincerely yours,

*Paul D. Krynine*

Paul D. Krynine  
Professor of Petrology,  
Chief, Division of Mineralogy

P. S. My command of German is reasonably fluent and you can answer me, at least partly, in German if you so desire.

*Is that lecturing?  
Sander will*

*100% of 3/5  
in under  
Semester*



Dr. Bruno Sander

Innsbruck, Alte Universität  
25.II. 1948.

Herrn

Dr. Paul K r y n i n e

Professor of Petrology and Sedimentation  
The Pennsylvania State College

P e n n s y l v a n i a

Sehr geehrter Herr Kollege!

Vor einigen Tagen ( am 19.II. ) erhielt ich Ihren Brief vom 13.II., die drei Arbeiten, welche für uns gerade jetzt von besonderem Interesse sind, da ein Schüler über die "Tuxer-Grauwacken" arbeitet, ein Gestein zwischen Arkose und Grauwacke, im Sinne Ihrer Einteilung. Auch die schöne Einteilung des State College habe ich erhalten. Nehmen Sie für alles meinen besten Dank. Es hat mich besonders gefreut, dass Sie als Sedimentpetrograph sich für Gefügeanalyse interessieren, wahrscheinlich kann eine möglichst weitgehende Kennzeichnung der Gesteine auch Ihren praktischen Fragen dienen. Ich würde gerne den Herren am State College, deren Namen Sie mir nannten, Arbeiten aus ihrem Interessenkreis schicken, aber ich habe nur noch von wenigen Sonderdrucke.

Zunächst beantworte ich die Fragen, welche Sie auf Seite 4 Ihres Briefes stellen, in den Beilagen zu meinem Schreiben, Es wird einige Zeit dauern, bis ich weiss, ob sich die Schwierigkeiten hier überwinden lassen. Es ist da die Frage meiner Vertretung hier in den Vorlesungen. Das ist derzeit in Österreich eine sehr grosse Schwierigkeit, da durch die innenpolitische Entwicklung nach Ende des Waffenkrieges sehr viele Kräfte ausgeschaltet sind. Ferner muss ich klären, ob ich hier, falls ich fortgehe, überhaupt Geld bekomme, um laufende Zahlungen zu leisten, ob ich



die Wohnung behalten kann, Schwierigkeiten, welche es zu Ihrem Glücke in U.S.A. nicht gibt. Ferner sind nicht nur die Studenten meiner Vorlesungen (über 150 Belegscheine) sondern auch die vorgeschrittenen, Doktoranden etc. (dzt.fünf) ganz auf die Leitung ihrer begonnenen Arbeiten durch mich angewiesen.

Das Buch, welches unsere Fortschritte seit 1930 zusammenfasst ("Einführung in die Gefügekunde" 2 Bände) geht eben in Druck und ich kann, bis dieser unter den derzeitigen sehr grossen Schwierigkeiten, welche den Beginn des Druckes seit zwei Jahren verzögert haben, durchgeführt ist, von Innsbruck aus nicht einmal eine kleine Reise machen, so lange der Druck im Zuge ist.

Ich langweile Sie, verehrter Herr Kollege, mit solchen Dingen nur, weil mir dies Ihr freundliches und sachliches Schreiben naheulegen scheint. Ich werde über den Stand dieser Dinge, Ihr Interesse vorausgesetzt, unterrichten. Es kann sich manches daran mit der Zeit günstig ändern.

Was meine Person betrifft, so kann ich nicht fliessend genug englisch, um Vorlesungen zu halten. Ferner habe ich kein Instrumentar (Mikroskop mit Universaldrehtisch) in meinem persönlichen Besitze, das ich von hier weg- und mitnehmen könnte. Da ich in U.S.A. keine Möglichkeit habe, durch Consultieren Geld zu verdienen und auf diese Weise meinen Lebensabend von fremder Hilfe unabhängig zu machen, ist es sehr wichtig, ob ich nach Österreich zurück könnte. Dies hängt von Entwicklungen ab, welche sich heuer wohl sicher klären werden.

Nehmen Sie, sehr geehrter Herr Kollege, auch noch meinen besonderen Dank für die freundliche Bereitschaft, dieses eilige Schreiben deutsch zu lesen und meine guten Wünsche für Ihre Arbeiten

Ihr ergebener