Session I **19 December 2002**

Interview with Indira Chowdhury **Venue: Obaid Siddiqi's office at NCBS**

Family background and early years in Uttar Pradesh

Indira Chowdhury: We thought we could start with your childhood and family.

Obaid Siddiqi: So, let me start with what the family's own background is or was. My ancestors lived in a village called Bhitri which is just on the border between Benaras and Ghazipur - Ghazipur is an eastern UP district - 20 miles from Benaras city. It's a very old village, that is, the settlement is very old - actually it goes back to the Gupta period. In fact, if you look around the village you see the ruins of the Gupta period. But our clan settled there probably some time in the 15th or 16th century - that (is what we know) from the remains. But from Akbar's times, there is a written account of this. So there is actually a description of this clan inhabitation in *Ain-I-Akbari*. So it goes back till about - Akbar [belonged to] the 16th century, right? What happened before that is not known, it's all hearsay.

I think the original founders of the clan habitation were Arabs who came there in the Sultanate period. [Originally] they seem to have been religious teachers or figures like that. Then over a period of time they became various kinds of court officials - local court officials so that is how the name Qazi as an appellate was used by all of them, which essentially [means], the judge - the local court judge. So that's the background. In Akbar's times this particular clan became very prosperous because they got land grants, So they were the zamindars - the landed gentry - typical of that part of UP. I think they lived like that, on land for a long time.

But coming to my immediate ancestors, the pressure on land must have increased; and (the) land began to get divided more and more. So in my grandfather's generation people began to move out. My grandfather became a lawyer. He moved out of the village and he spent most of his working life in Basti, another district in eastern UP. I was born in Basti in my grandfather's house. When he retired from work later in life he went back to the village. He was a successful lawyer, so in addition to the old house that [existed] from old times he had built for himself a house adjacent to the old house. He went back to the village. I say this because we had a fairly lively connection with the village. Till the last years of my grandfather's life we used to go there. Especially [during] the vacations. And both our family and all the other the members of the clan who were [living] outside, would come and live there. Therefore we had a connection with the countryside and the villages around. So that's the sort of family background.

My father's generation [had moved out]. On my mother's side - her father also had moved out of Bhitri - they belonged to the same family – and they moved out and began to work as court officials in a small town near Lucknow. So their children - all of them – that is, my uncles and (the rest of) my parents generation were people who grew up in the cities. [This happened] on my father's side and my mother's side. Its possible that one of the reasons their fathers moved out was that they realised that they wanted to send their children to universities and colleges. Nearly every one of my uncles on my father's and my mother's side seem to have gone to Allahabad University. They all graduated from Allahabad University. Whereas the generation before that [had] people living on land or becoming lawyers, in my father's generation, they became various kinds of civil servants [working] in the Government.

My father was also in the provincial civil service. That seems to have been the trend in that generation. These were the people with the closest connections in my family. One of them, not my direct [family], was an uncle of my father's, my grandfather's cousin – [he was] the only one, I think who had an influence on us. He was quite a prominent Congress politician.

Indira Chowdhury: Does that mean a lot of the clan were supporters of the Congress in the early days?

Obaid Siddiqi: I thought about that and well...probably not. I think most of them, were apolitical, because they were working in the government. But, in general there was no other person who was also in politics and belonged to the other side. The impression that one got as a child was that Congress people are good.

The Quit India Movement of 1942

Indira Chowdhury: How did the events of 1942 – the Quit India Movement affect you?

Obaid Siddiqi: Since my father had a job in which he could be transferred from one district to another, I lived in various parts of UP. I was born in Basti, I grew up in Gorakhpur and Faizabad. In 1938 or sometime around that, (just before the war broke out) we came to Benaras, and [stayed] there for several years. During that period, my recollections are quite vivid; before that they are rather sporadic - scenes of various cities and places. But from '39 onwards, I think I have more cogent recollections. We came [to Benares] in 1939 - war broke out in '39. That's my first sort of strong recollection of things that had to do with the world outside.

First of all I think there was talk of war and once war broke out [there were discussions] at home. We knew about Germany. We were grown up by then...by '38, I was six years old. Plus the older people – the cousins in the family [would discuss]. I remember, one of my uncles, who was a son of Dr. Mehmood, the Congress lawyer. They were all very actively anti-British. He used to listen to the German radio in the house. There was an Indian broadcasting news from Germany. They were not doing so much Nazi propaganda in those days as anti-British propaganda. So you know, this was in Benaras.

This is one my vivid recollections: we were living in a house just at the outskirts of the city. It was an old, large and sprawling house. Suddenly, one night we woke up with all sorts of shooting and such sounds. We got confused. We were just children. Then when we woke up there was the army and they were doing an army exercise. So there was a mock fight going on. By then the war had come to Burma. Calcutta had been bombed. So war was quite close and people were thinking of sending their families away to the villages. Prices began to go up, rationing came, there was shortage of everything. Especially civil servants, people who were working for the government, were all advised to grow things in their houses. So (laughs) they started planting - vegetables and crops in their gardens.

Indira Chowdhury: But you remained in Benares during this period?

Obaid Siddiqi: I remained in Benaras until 1943.

Indira Chowdhury: In 1941 when Subhash Bose left India to form the INA – did that create an impact?

Obaid Siddiqi: I can't recollect knowing [of] Subhash Chandra Bose in 1939 or '40. I think ~~I became more aware~~ of him later, when I became more politically aware of what was going on.

~~See,~~ I didn't go to school. My father had peculiar ideas. He didn't think schools were good places for education. ~~(Laughs). So both~~ my sisters and brothers - we were three brothers and five sisters - ~~we~~ always had tutors in the house - ~~both for the older children and the younger children~~ - often more than one for different subjects. ~~Until we~~ were quite old things went on this way, ~~and~~ my father himself liked teaching. He spent time teaching us.

But in Benaras I went to school. ~~I think~~ I started going to school in 1941. First ~~incident~~ I remember ~~in~~ 1942 on August 9 - ~~that I have a very clear recollection of~~. I had gone to school. There was ~~a big~~ disturbance ~~and things were going on~~. All the senior ~~school~~ students had gathered ~~there~~. One student [had] climbed the roof of the school and ~~[had]~~ planted ~~a~~ tricolour. All the others were watching ~~the younger children~~. The headmaster and ~~all~~ the other teachers were shouting at them ~~and~~ saying 'Come down! ~~All they were worried about was that these people would fall off the roof!~~ (Laughs). Anyway they planted the [flag]. [~~After that~~] the headmaster persuaded ~~them that "Don't~~ do anything in the school, ~~otherwise~~ the police will come and there will be trouble in the school." Then the whole lot - ~~all these senior classes students, they~~ walked to a park ~~which was~~ next to the school and made some speeches.

Indira Chowdhury: This was in 1942?

Obaid Siddiqi: Yes, on 9th August. That's my first recollection. That's when I first became aware not only of the war but also of the Japanese –[the fact] that they were so

close to Burma – and what was happening in Germany. There was a fair amount of discussions and conversations in the family about the Congress.

There was this grandfather of mine who was arrested. So we knew some things were going on. But in '42, after this incident, I became more aware. In the city itself, in 1942 August - the students were demonstrating at the University and the University was closed. In '43 not too much happened in Benaras. But in '42 there was a fairly serious disturbance in Eastern UP – in Baliya.

In 1943, we actually we went for about a year to Baliya. Actually I saw how terrorised the people were as a result of repression. So there were people in the family and some of whom we knew, who were arrested, detained, put in prison in Benaras. There was an Urdu poet, Ali Sardar Jaffri who died two years ago. Sardar and a close friend of his Qazi Ali who was a Congressman, they were detained in Benaras in the prison there. So since We had some family connections with Qazi Ali and Sardar Jaffri, We used to go to the prison to see them, and take food and things for them.

The Bengal Famine and Sunil Jana

Indira Chowdhury: Did the Bengal famine have any impact?

Obaid Siddiqi: Not at that time - the Bengal famine had not broken out. [After that] In 1944, my father was transferred to Kanpur, and then I went to Kanpur - I was in the 8th class. The Bengal famine happened around that time. By the time I got to Kanpur, I had become politically much more aware. I was reading the newspapers carefully and knew what was going on - there were lots of things happening at that time.

More than anything that happened was that two members of my family - one was an uncle, who was Dr. Mehmood's son (he had become a Communist) and another cousin of mine, an older cousin who was more of a socialist, not then actually a Communist, but later he became a Communist. So when we came to Kanpur, these were people who were often living in the house or coming and going. They had friends who were coming [to the house]. So we made contact, or at least, I made contact with people who were in Kanpur.

Kanpur, was of course, a city which was a major trade union centre - they had textile mills. So, when I went to school in Kanpur, I became very aware of student politics and at that time I became quite involved in school politics. And that's when Bengal famine happened. I have this recollection that when I was in Kanpur, there was a man, a Bengali photographer - a very good photographer, Sunil Jana. He took some remarkable sets of photographs of the Bengal famine - of people dying. We came to know Sunil Jana. I used to be very interested in photography - I had a camera of my own. So Sunil Jana came to Kanpur in the period after the famine - 1943. My friends, political friends, because I was the one going around with a camera - they introduced me to Jana and I spent 2 days with him going around and he was interested in photographing people. He had remarkable photographs of the Bengal prisons, That was the time when many students were going to Calcutta to look at the Bengal Famine. That was the year of the war wasn't it? 1946, no, in 1945 the war ended and the army moved in. That was the time when the war was over.

There were also other people in the family - some who had remained in prison during the war. There was at least one who was imprisoned, and then caught by the Japanese, taken to Japan and put in the INA. (Laughs). So there was one on the other side! We knew what the INA was. This particular uncle used to write letters to my

of the relatives an uncle and an older cousin had become Communists. In Kanpur I came to know many who were communist

was a working class city, a major centre of trade union activity

In Kanpur I met a well known Bengali photographer had taken some remarkable photographs of people dying in fame, I was interested in photography.

When my

the working class areas here

went work on famine relief. Some around 1945 or was it 1946 the war came to an end.

There were some in the family who had joined the army. One was imprisoned by the Japanese

He wrote

mother from Japanese concentration camps - desperate letters [about] how badly they were treated and how bad the food was. I suppose since he wrote in Urdu, the letters were not censored!

Indira Chowdhury: And school was not interrupted during this period?

Obaid Siddiqi: No interruption. I don't think anything much was happening. The war was over. So in '42, we knew what happened was...I mean '42 all of that happened, people were arrested and then these people were released and around 1945-46, the Congress leaders were released. The strongest recollection I have is: in the summer of that year we were in Shimla for the summer vacation and that is when Cripps mission came. We were in Shimla and all of these people came to Shimla for the conference and there was a lot of meeting and discussion going on between Jinnah and Gandhi. So there was this thing in the air that maybe Jinnah and Gandhi will come to some agreement so that they could reach some solution. At that time, I was listening more to politics and actually to the details of politics – to what Sir Stafford Cripps was saying. At that time it looked as if there was a real possibility that there would be an agreement.

Early Intellectual Influences

Indira Chowdhury: When you were in school were there any influences that motivated you to take an interest in the sciences?

Obaid Siddiqi: Not in school. I can't think of any [influence] in school that was scientific. I was trying to think of it - nothing in Benaras – no intellectual influences. Yes, there was one person, I think - among of my uncles, who used to study in the Indian Institute of Science. He was mechanically inclined and he would make boats which could

run on steam
~~sail~~ and stuff like that. That was fascinating. My father had very little intellectual interest. ~~You know he was more interested in - like~~ A typical civil servant of those days, he was interested in sports. He was a good tennis player. And he was more interested ~~that we were~~ in my learning to play cricket and tennis. (Laughs) I mean, he generally wanted to make sure that we were doing well in school, but he wasn't particular about what we were studying. ~~So~~ The only thing [that] ~~I can see~~ [I got] from him – [among] the early influences was ~~[that] he had a very~~ good sense of poetry. He had a very good appreciation of Urdu poetry and Persian poetry. ~~I think~~ I became interested in [poetry] because of him.

Indira Chowdhury: And Persian you picked up at school or at home?

Obaid Siddiqi: At home [From my] parents ~~mother at home~~ and tutors teaching at home. In ~~school - yes, when we went there.~~ But.this was much before the school. ~~, in early years~~.

In Kanpur ~~when we came~~ - I was studying science in school. The particular school I went to had no biology. We were doing physics chemistry and mathematics in high school. I could not have had any direct or particular interest in biology. When I was in the last year of school, ~~when I finished~~ - this was a school which ~~was [part] of an institution~~ run by Arya Samaj called the DAV ~~schools and colleges.~~ The school was ~~just~~ next to ~~a~~ the college. ~~When~~ After I finished high school, I actually spent a year in the college. ~~So~~ At time I had become interested, and I was generally doing well in science ~~in~~ and maths. ~~I was doing well~~. I did acquire some interest.

I had ~~this~~ a chemistry teacher Mr. Roy, who ~~was actually~~ a very good teacher. He ~~used to take~~ took his chemistry labs seriously. In the high school labs, we made gases and ~~learnt to collect gas in jars.~~ studies their properties That I liked ~~, that~~ It was fascinating. ~~Actually~~ At home, I

remember, me and a cousin of mine - who was living in the same house, we had some kind of a lab in our room. I found a place where one could buy glassware, and set [it] up, it was very amateurish. This cousin of mine was very interested in electricity, so he was making these motors. He was interested in heaters, motors, bells. I wasn't thinking of science as something I would pursue. I was interested in photography, and especially after spending a few days with Sunil Jana, I was seriously imagining myself going becoming a professional photographer. It was there for a while. Gradually I did less and less of it because I didn't have enough time. I did quite a lot in early years.

So school as I said, yes, I was reading science - I knew science. Yes, there was one person who I think of as special - who led me to read more about science. One of my father's colleagues, one of his friends, was quite an interesting man, Mr.Jha. He was quite intellectually inclined. He came from a family with strong intellectual background. His brother had been Vice-Chancellor, Allahabad University. This man was very talented. So I remember that whenever I did well in school, he would give me books. And he gave me a set of books, which were all science books.

Indira Chowdhury: What kind of books were they?

Obaid Siddiqi: Well, these were general books - compendia of engineering, history of science - various discoveries, and stuff like that. They were for older children. You had to know a little bit to be able to read. So I read some of it. They were the only things in my books that were there that was outside what I was reading in school.

I think that [brings] me to the end of my school days. School I passed out in 1946. I was 16 years old. [Then] I went to a college. At college was the first time I took biology. We had physics, chemistry and biology. We had to do all three.

All [the] reading that I was doing at that time between finishing school and going to college - I was reading a lot of poetry and that was the time I began to read novels. So in the following two years I read all the standard things that people read in those days.

Indira Chowdhury: So what did you read? Dickens? Hardy?

Obaid Siddiqi: Dickens, as much as I could, Walter Scott, Hardy. Not all of Hardy, but some.

Indira Chowdhury: And what kind of poetry?

Obaid Siddiqi: Poetry - I was interested not in English poetry - English poetry I was taught a little bit in school, but not too much - but I was interested in Urdu poetry. By then I knew Ghalib, Mir, and Iqbal. I knew some Persian, although I had not read much Persian poetry then, I knew some. I was very fortunate to have teachers who were very interested in Urdu poetry - both at school and tutors at home who always encouraged me.

Indira Chowdhury: And this continued in college - this kind of encouragement from teachers?

Obaid Siddiqi: Well, not in college. It was only at school that they were [such] people - We didn't find that kind in college. Like a maths teacher I remember in school, in the DAV school, Abu Ishmael Afsoor (Check name). He knew that I knew some poetry. He had a peculiar way of teaching geometry - he would sit down and close his eyes, and ask one of the students to go to the board and he would say, draw a triangle, bisect the line, make a perpendicular - with his eyes closed! (Laughs) Then he would prove theorems sitting on his chair - extraordinary man! Some days he would come and say, "Today I want to listen to poetry". He would ask some student to get up and he was so good that nobody ever said anything to discourage him from doing what he was doing.

Among my tutors there was a man, Devisahib Vidyarthi, he was a scholar of both Sanskrit and Persian and he used to teach us English and Maths. I, and a cousin of mine used to work with him. Many days he would come and we would say "Vidyarthi-saab, - Geometry nahin aaj to Khayyam padhenge!" (We won't do geometry, today we shall read Khayyam). And he would say, "No, no, this is not what I come here for", but still he would [indulge us]. So I think we had a fairly reasonable liberal education.

College and University Education

Indira Chowdhury: And what about your college education?

Obaid Siddiqi: One year of college I did in Kanpur the first year. When I was in the second year, my father was transferred to Bareilly. So I went and I did a second year of college in Bareilly.

Indira Chowdhury: And in college you did, as you just mentioned Maths, Physics, Chemistry and Biology?

Obaid Siddiqi: At that time whatever I was thinking of becoming was not clear. Photography was one thing in which I was interested. Sports I was very interested in very interested in hiking and stuff like that. But the only thing is that people sort of assumed that since I was reading Biology, I would become a doctor. But I wasnt seriously thinking or seriously preparing for medical. And my father wasn't also thinking that way.

So not until I finished [college] which was - '46 I finished school, '48 I was in Bareilly - so until '48 my interest in science was just that of somebody who was studying to pass out of college. All my interests were outside science.

Indira Chowdhury: What kind of science teachers did you have? Were they encouraging you to read a lot outside the syllabus?

Obaid Siddiqi: Good and bad. In school, Mr.Roy who was teaching us Chemistry, taught very well because he actually taught chemistry by making us do experiments. The Physics teacher was very good as a Physics teacher. Whatever I read from him I still remember. But as Physics is usually taught - theoretically. The Maths teacher was very good - this was Mr. Vishnudayal Ghosh. Then there was.the [teacher] who liked poetry. English was very good - the headmaster himself came and taught us English. He also had a remarkable style of teaching because some days he would simply come and ask the students to stand up and take the book and read the poem and ask other students what it meant, or some days he would explain. He could create great interest. So I think the teachers in school were good.

I don't think in the college [the teachers] they were very good. When I came from school to college, it was more stereotype. College I suddenly realised that nobody was paying attention. You see, in school, what sort of kept you paying attention was that if your reputation was that of a good student and teachers are taking interest in you, then you also responded by taking interest in what the teachers were saying. When I came to the college it looked like it was a big sort of crowd which came. They attended one class and they went to another class and nobody was paying particular attention to who was doing what.

Indira Chowdhury: Were there very large classes?

Obaid Siddiqi: In Kanpur first and then in Bareilly [there were] reasonably large classes of about 60 - 70. Labs were very difficult. People were made into groups and asked to do the experiment. What you learnt was that you asked the other fellow to tell you what was expected and you could write it. Chemistry - most of it was that you were given solutions and you had to find out what they were. What people were doing was to heat or boil them up - but nobody was particularly explaining why you are doing what you are doing. But in the end you found out what was expected. You had to give some names, that these are the radicals etc - and we all learned to do that pretty quickly. So, I don't think that the teaching was good. Dissections were like that too.

Indira Chowdhury: Dissections too were done in a group?

Obaid Siddiqi: No, dissections were better. You were given animals. But the problem is that dissections are a bad thing to learn by yourself, because you don't know what you are supposed to do. Dissection is one thing where somebody should show you by actually doing a dissection. I never saw that until much later. In college they gave you the animal, put it on the board and said do this - expose the nervous system.

Indira Chowdhury: So what animals did you dissect – earthworm, cockroach, and the frog?

Obaid Siddiqi: What did we do in college? Yes, earthworm. Cockroach, yes, that was later in the University. But I did frog. So that's it. I think my interests were all outside biology.

Indira Chowdhury: How many years were you there in Bareilly?

Obaid Siddiqi: One year. So I finished college in '48. I passed out. At that time my father retired, and then we decided to move to Aligarh. There I had an uncle who was a lecturer in the University. So, I'd already taken biology,

Indira Chowdhury: He was in which department?

Obaid Siddiqi: Botany. So I read in Aligarh the three years of college and then two years. Three years to do my BSc and two for my MSc. That is where I think I had a more systematic education. So gradually I became more interested in some of the questions.

Indira Chowdhury: So '48 to '49 you spent in Aligarh....

Obaid Siddiqi: No, Aligarh I started in '49 and finished in '52. The first three years of Bachelors [we had to go] to all departments. Chemistry, because I was reading Chemistry -we had to do three subjects, Zoology, Chemistry and Botany. I finished BSc, and by then I had become very interested in Genetics. Also I found a teacher. This was, I think, partly because of my uncle's influence, and various choices that were available. I was more at home in the Botany department than in others. Chemistry I didn't particularly like. Zoology I had some pretty good teachers. But in Botany there were a whole set of very good teachers. And there was one particularly who I got along with, who made Botany more and more interesting. So I decided when I did my Masters to do Botany.

Indira Chowdhury: But when you were doing your BSc were there teachers who were already talking about new developments?

Obaid Siddiqi: See DNA was a new development that started in 1953. That was the year I had just passed out. So until '53, the newest developments [meant] getting away from classical taxonomy. There were no new developments, [only] what used to be called experimental biology. Most of the teaching or courses, if you look at it, [had to do with]

Systematics. So either in Botany or in Zoology, you had to learn a lot of classification. - various classes. Then anatomy, physiology, systematics and very little of genetics or evolution was taught. It was there in the course [but] what was taught was pretty boring. Sort of standard - not texts, not books. So it was only when you came to Masters that you [were] introduced to books that you could read. But not [at the] BSc [level].

But on my own I began to read because I had books, some of these science books that I had collected, some of them had quite interesting material on genetics. Even while I was in BSc, I became very interested in genetics. And I learnt a fair amount of genetics beyond what was being taught. When I came to MSc - there was no genetics teacher in MSc, there was no genetics being taught. But this one teacher that I had, Riayat Khan, he was an embryologist and I began to work with him and I learnt some embryology.

Riayat Khan

Indira Chowdhury: Riayat Khan had come from Dhaka, right?

Obaid Siddiqi: Yes, he had coma from Dhaka. So after the Partition he decided to come back. He was working with a student of - not a student – (fill in name?) I don't know, he must have been in Delhi University. Because Maheshwari - Professor P. Maheshwaru, who was chairman at Dhaka came back to Delhi as Head of Botany and he brought with him Riayat Khan to Delhi. In Delhi R Khan was teaching and then Dr, Zakir Hussain hired him and brought him to Aligarh. That was just when I was in my BSc, and he began to teach us. He taught us a little bit. There were others.

Not clear. Fill in

Indira Chowdhury: At that point, he didn't have any particular influence on you?

Obaid Siddiqi: Well, when I went into MSC, I got friendly [with him]. I had great respect for him. He was not a very specially scintillating teacher, but he was a very hard-working and honest teacher. He worked day and night. He was one of the few people doing research [in] his lab. For some reason he took upon himself to prevent me from wasting my time on other things and paying attention to Botany. [Laughs]. I quite liked him. That was actually when I first took my work seriously – and [I was] working with him - on embryology. I, in fact, towards the end, did a small research project with him.

Well, I became a lecturer. I was good as a student and I got an appointment, so I began to teach. I wasn't doing any serious research at Aligarh, but in between there was a short period when I did some embryology and Riayat Khan was encouraging me. He was telling me what to do - he said you do some experimental embryology

Indira Chowdhury: What was the project? Could you describe it a little?

Obaid Siddiqi: What I did? Well, what I [worked on] actually was plant hormones. So one of the things is that there are hormones with which you can treat plants to produce fruit and seed - hormone induction procedure. And he showed me something about this – you know, you take a plant and do this – something along those lines - the production of fruits and seeds.

While I was teaching, he knew of my interest in genetics and I was teaching genetics in the class. As a lecturer I had made an effort to actually [bring about] a change in the genetics curriculum and introduce more sophisticated genetics like linkage. [But] the Faculty said – well, they didn't like the idea. Everyone said, "Now this is too much for our students. They cannot even remember the Mendel's laws, how will they learn

linkage and how can they analyse linkage...this will not work." So, it failed. The proposal [to revise] fell through. [Laughs]

Riayat Khan was very supportive. He tried to argue, as a senior teacher that this is important to modern biology. So modern [biology] at that time [meant] getting away from Mendel's laws and introducing some more quantitative genetics - linkage, study of evolution and stuff like that. That used to be called General Biology. So because he was interested – and [because] he knew of my interest - the idea, it must have either come from him or - I don't know how the idea came about. Two ideas were there - one was that I was doing some embryology with him and that seemed reasonably interesting. It was tedious, you had to do a lot of section cutting and reconstructing embryos – it wasn't particularly exciting. Experimental embryology was more exciting - things happened.

A missed encounter with DNA

Well, it was in that year, 1953, one day that my uncle came to me and he said, " Did you go this lecture in the Chemistry department today?" There was a man called, Dhar, he was a chemist, he is alive. So Dhar had come there to give a lecture and he had talked about DNA and he had told the audience that this is the stuff of the gene. This was 1953. And I didn't even go to the lecture. [Laughs] I didn't know what DNA was! We had never been told about DNA in our MSc. But how could they have, because in '53 it was discovered. [Laughs] So it was only.in the lecture - Dhar came in either '53 or '54. Whatever year it was - in his lecture he spoke about it. My uncle came and he said that [the lecture] was very interesting. They seem to have found out what gene is and you

should have come to the lecture! {Laughs] That is my only recollection of what I had heard of DNA in 1953.

Trofim Denisovich Lysenko

Indira Chowdhury: Wasn't Lysenko's writings also being discussed around this time?

Obaid Siddiqi: I became very interested in Lysenko. Because of my left wing connections I read a lot about Lysenko. But read more than what I should have read because the more genetics I read, the more I couldn't see anything wrong with this - whereas Lysenko in his writings was making very, very rabid criticisms of Mendel, Morgan, and what you call Mendelism, Morganism – [he was saying] that everything is wrong. Now what I couldn't really figure out was that if everything is wrong, then how are these things working. He had no explanation. So there was a conflict in my mind.

Indira Chowdhury: So was the interest in Lysenko in India a result of the Left being interested in what was going on in the Soviet Union?

Obaid Siddiqi: It was being described as Soviet genetics. The idea was that there is a new genetics, which is developing in Soviet Union. So I read books mainly published in England [on] whatever the supporters of Lysenko were thinking.

Indira Chowdhury: But this is something even Francois Jacob says - that he becomes more interested in Genetics as he becomes aware of the Lysenko controversy.

Obaid Siddiqi: [Laughs] Because as a Marxist, the idea was very attractive: that environment influences the evolution and growth of organisms. What Lysenko was

saying that environment influences genes and that evolution is not a random thing. So that was a very attractive idea and many, many people who were non-geneticists, found it very attractive. Brenner's teacher in Cambridge, Anselwood - he was a physical chemist, he was a very smart physical chemist - he even got a Nobel prize, but he was a strong supporter of Lysenko. You know, you could always work out things in terms of some kinetic mechanisms and this thing is happening – [that] this is not an unusual thing. But there was a conflict in my mind. Because of this I got to read Haldane a great deal - because of Haldane's politics and his style of writing. By the time I finished [~~hat~~ MSc?] in 1954, I had read *Biochemistry of Genetics*, I had read Haldane's *Causes of Evolution.* I had read Haldane's collections of articles which were *Daily Worker* articles about various size in biology and stuff like that. So I think that Lysenko's only contribution is to turn my interest to genetics - but it didn't prevent me from reading genetics.

check! Not clear on tape.

Okay, I think somewhere along the line, 1954 or so I had the idea. Two motivations were there in genetics - one was that one should do some genetics, which is applicable - that's what our country needs. I was not aware of biochemical genetics, but the idea was [that] one should do genetics which had application to agriculture. Not just to take up the burden of teaching in universities but [to do] what is applicable. Genetics that is applied to agriculture - applied to medicine. I mean, it's the same as we are doing now [laughs] I mean biotechnology. So that has all along been the case - that whatever you are doing, should have some application!

I think somewhere the idea arose, [I think in '54] they said that "Look, you can't learn genetics here." So I said, so why don't I take leave, and go to Delhi, because I knew that in Delhi, in the Indian Agricultural Research Institute, there was a lot of genetics

[that was being done]. And he (Riayat Khan?) said yes. You know, going to Delhi was easier than going to Europe. Anyway, I didn't have so much money and [by then] my family was not so rich to give money to go to England and I was a lecturer. So the simplest thing was to take leave and go to Delhi and that is the decision that I made in 1954.

Dr. Zakir Hussain, who was our Vice-Chancellor - by then, I had come to know him and he sort of took an interest in me and encouraged me and said that that's a very good idea, [he said] "Why don't you do that." [I think] he also was moved by the idea that one should learn some agricultural genetics that was applicable and come and teach it to the students. I made this decision. I think I should stop here.

The Political Scenario in the 1950s

Indira Chowdhury: I have two more questions.

Obaid Siddiqi: So that's the first time I stopped University education and [went] to try some serious research. Up to this point, the research was all college level.

Indira Chowdhury: Certain things happened in the fifties, politically, for instance, there was the aftermath of the Partition.

Obaid Siddiqi : Well, that comes in fifties, so let us see - independence came in 1947. Then [came the] Partition - a huge disturbance.

Indira Chowdhury: Did that affect your family in some ways?

Obaid Siddiqi: Very greatly. Because there was a lot of rioting in western UP, eastern UP. People migrated on a huge scale - Delhi went through very difficult times. [But]

nobody in our immediate family was affected; we were slightly protected because of my father's position. But many, many people whom we knew all around, they were affected and many were leaving. But certainly western UP was badly hit by riots and in Bihar there were riots. At the time of riots it was very tense and violent time.

Indira Chowdhury : But did a part of the family decide to move to Pakistan?

Obaid Siddiqi: I think most didn't move. That's interesting. Maybe, this has something to do with (incomplete) I think, of my various uncles, maybe one went.

Indira Chowdhury: Did anybody come back from Pakistan?

Obaid Siddiqi: My side of the family had no connection with Pakistan. On Asiya's side - that is, my wife's side - her mother [actually] came from Punjab, so half her family was in Pakistan. Her father's side of the family was here, and she had an uncle who actually was a Communist and he went to Pakistan to organise a revolution there. [Laughs] So he actually came back - he was in prison there and when he was released from prison he came back. But her mother's side of the family - her mother stayed here, but her uncles and others, they were in Pakistan. But we didn't really have any connection.

Indira Chowdhury: So you were married in the 50s.

Obaid Siddiqi: Yes, we married in '54. Asiya also began to teach in Aligarh – she joined the history department.

Indira Chowdhury: And what about your reactions to the first General Elections?

Obaid Siddiqi: We were heavy opponents of the Congress, and supporters of the Communists. In the first elections, the Communists were very successful, quite surprisingly, they came to the Parliament with substantive votes. They had a very good presence; they had people in the Parliament who were good speakers. But they were a

small minority, but you know, in the University, you could get them to come, and give lectures.

Indira Chowdhury: Who were the people you invited? People you can remember?

Obaid Siddiqi: Hiren Mukherjee. Bhupen Gupta can't be described as a good speaker, because he had a stammer. Once we actually organized [a discussion] in the Union, and the subject of the discussion was: `The Congress has failed to live up to its promises'. [Laughs] Obviously we had to invite a speaker from the Congress side and the Opposition side. The Opposition speaker obviously moved the audience by saying that the Congress has failed.

Indira Chowdhury: Who was the speaker?

Obaid Siddiqi: I think Hiren Mukherjee was one of them..

Indira Chowdhury: And the other one?

Obaid Siddiqi: [From] some other party. I forget his name. Now the incident that I definitely remember is that everybody was in this hall, [and] the debate was quite civilised. On the Congress side, the speakers, [were] also good. But when the debate was over, then somebody suggested that a vote should be taken whether the motion is carried or not. And Rajan Sen and all the people participating were embarrassed, because they said you know, obviously the students will vote against the Congress, so then there was a big discussion. Some people said that look, vote should not be taken, because we have these guest speakers who have come from outside, we have listened to them and that is enough and that you should go home. It is not a debate amongst you that you should take a vote. But we didn't let them go. We said 'No, no, ' and we sort of voted that vote should be taken.

Indira Chowdhury: When the Atomic Energy Commission was established in 1952 – did you know anything about it?

Obaid Siddiqi: That's much later. At that time I didn't know anything about the Atomic Energy Commission. I had no connection. I mean this connection developed after '60s.

My connection with other people, all the connections were sort of through politics. This uncle of mine, I mean my father's uncle Dr.Mehmood, was actually a very close friend of Nehru, they had been at Cambridge together. His son was a Communist.

Indira Chowdhury: What was the nature of your interactions with other institutes of science in India?

Indira Chowdhury: Once in a while somebody would come to give a talk or lectures – [they were] good speakers – [from] other departments. In biology, I don't remember many. But in physics, I remember to have listened to KS Krishnan and several good biologists from Delhi and Punjab. Yes, I think every year we had a few good speakers.

Indira Chowdhury: And the awareness of Bhabha's work was generally there at that time?

Obaid Siddiqi: No - the awareness must have been there among the Physicists, but not among biologists - not generally, no. I mean, he was among the important scientists in the country - Bhabha, Krishnan, Raman - these names were known...Raman, of course, won the Nobel Prize. People whom we knew more directly, and could make sense of - were people like Maheshwari, who were coming to us as examiners. So I knew biologists. There were good biologists from Punjab, there was Dr. Mehra, Dr. Puri (somebody told me that he died two years ago). I came to meet Dr. Mehta who was a pathologist. These were the people who were coming from outside, mostly they would come to take

examinations, sometimes give talks. When I became a lecturer, I tried to organise {talks] - to bring people from outside to give talks, seminars for students,

Indira Chowdhury: So science becomes more alive for you once you start working?

Obaid Siddiqi: You know, I had actually no idea what doing science means. At that time I read a little bit and then I began to teach. [I was] learning a few things with Riayat Khan in embryology and stuff like that. But this really was a sort of incidental thing, among many other things that one was doing. As I became seriously interested, I started working.

[End of Session One]

Session Two
Interview with Indira Chowdhury

20 December 2002
Venue: Obaid Siddiqi's office at NCBS

Aligarh University after the Partition

Indira Chowdhury: We'll just continue from where we left off yesterday.

Obaid Siddiqi: I entered [Aligarh], you know, immediately after Partition. I went to Aligarh in 1949, and the years of Partition were '47 and '48 when most of the rioting, transfer of population etc were going on. That had a very severe effect on the atmosphere at Aligarh. First of all, half the professors [and] the student population came from North India, from Punjab, many from East and these people were just cut off. There was large-scale migration. So academically the place was in a bit of a mess. People were leaving, many were not coming [back]. The student body was reduced.

But it also had a positive effect in that the University became greatly reduced in size. So a place, which had many thousands of students, had only around two thousand or

two thousand five hundred left. As a result of which there was more attention, more contact with teachers, and the departments were large [and that helped].

That was the time when Dr. Zakir Hussain went to the University. He left Jamia and became the Vice Chancellor [of Aligarh]. In the years '48, '49, '50, he made a very strong effort to bring back people [and to] attract people to the University - students, teachers. I was talking about Riayat Khan, he came to the University in that period. We had some extraordinarily good teachers who were Professors, one of them died and one went away to Pakistan. [These were] two professors who had taught me in the first year, Dr Azhar (check name?) – they were very, very good teachers, they had gone away and they were replaced by new people who had come. There was Dhurjati Prasad Mukherjee who was a Communist in Lucknow – [Dr Zakir Hussain] brought him that year. It turned out that we began to live in the same house. So in some sense the University began to revive. And that was a good [effort] of this.

Indian Agricultural Research Institute, Delhi

Anyway, as I told you, when I went from my [Bachelors] to Masters, then I became more focussed in work and at least part of that influence was Dr. Riayat Khan who sort of attracted me towards working seriously in the lab. Before that you know I was doing it as part of many other things in which I was interested. And it is because of the interaction with him that when I finished my Masters, and then I became a demonstrator in the University for a few months before I became a lecturer, I actually decided to work with him on embryology. I did a little bit of plant embryology which was mostly histological work. Then he himself said, "Look - since you are more interested in

experimental embryology, so why not do something more experimental?" So I began to work on hormones. I have a couple of papers, which you will find [among] my old papers. So you can see some interest in research was developed there.

When this idea grew, two options were there: to go abroad or to work here [but] I had this idea that you should work in India and you should work on Indian problems, genetics of agriculture (.I had become by then interested in genetics). I wanted to work on plant genetics in India because that is relevant in an agricultural country. That led to the idea that its an easy thing to go to Delhi and work. I don't know who suggested, but that I should go to IARI (Indian Agricultural Research Institute, Delhi) and work there and that would be an easy thing. Many said that it would be an easy thing to arrange that the University would give me leave and the decision was made. I actually took leave and went to Delhi.

I think it was '56 or '55 that I went to Delhi. And going to Delhi was a major change. Because that was the first time that I went to a different kind of institution - it was very large, and all the work was research in biology. It was largely applied research but it was real research. People were teaching - they were doing a fair amount of teaching for training - they took students and trained them for associateships, but I wasn't taking any part of that teaching. Generally there were many departments - the.Botany Department, Agricultural Genetics Department.

Indira Chowdhury: So which department were you in?

Obaid Siddiqi: I joined the Genetics Department - it was called Genetics at that time, not Botany. The University had Botany department but I was in the Genetics department.

Indira Chowdhury: And whom did you work with?

Obaid Siddiqi: In the genetics department there were two groups – one group had the person with whom I was working, his name was Dr. Joshi, AB Joshi. He is still alive. His interest was plant breeding and genetics. He read in Cambridge and was trained as a plant breeder. So, Joshi's group was actually where I was working. There was a second group there which was also very active, and that was M. S. Swaminathan's group. Now Swaminathan was very interesting. He had a very active, research group. It was a large group of smart young people who were working. Dr. Joshi's group was not like that - he had a more readers, and people who were employees of IARI - they were good people, but they were all involved in their agricultural genetics work. He didn't have many students. Swaminathan had, in his group, two brothers, one was Ganeshan – A.T. Ganeshan, and the other was Natrajan. Swaminathan himself had interests [that] were somewhat different.. I think he was working more directly on plant genetics. He had a group of people and he allowed them to do microbial genetics. Dr Chopra who later became the Director of IARI - he still is alive. He (Chopra) and these two [brothers] were running a lab where they were doing microbial genetics. I think they were working on yeast or Neurospora - I have forgotten. Anyway, we were all living in the hostel and they were very interesting people. I got to know [this] group - these were associates or post docs. I was also in the position of a post doc. Then there were other people - geneticists who were also living in the hostel, and working on plant genetics. Although my work was in Dr. Joshi's group, I had a lot of scientific interaction with these people - Natrajan, Ganeshan of Swaminathan's group. They were [doing something] different in which I was more interested.

Wheat Genetics at IARI

My own interests [made me] eventually work on plant genetics, so [Dr Joshi] suggested that I should work on wheat - on resistance to diseases. So that became my long-term project there. That is where I first learnt genetics- proper - plant genetics and how to do it. It involved two things: learning a little bit about plant rusts and.the pathology of infection. Rust-resistance was what I was to work on. So I had to learn a little bit about mycology and physiology and how plants are tested against rusts. In those days – it's an old tradition of pathology, working on rusts in India - wheat rusts. It has got a system of how wheats are infected. Rust has two stages - one of this grows in a thing called bel (not clear) and this grows in the hills and the other stage is in the rust. So in the foothills, the disease is spread by infecting the wheat and then somehow the spores of the thing go and infect the berries in the mountains. This has been a problem - of how the disease is spread because the second stage cannot be completed in the plains. So various people in agricultural Indis had worked this out - by trapping the spores at various altitudes it was shown that the spores fly out. So this was an interesting problem.

One of the problems in wheat genetics is that wheat is a hexaploid - it has three sets of genomes, each chromosome is present thrice. So any mutation that you make - the conventional Mendelian patterns are not very common. So genetics in these plants - when they are diploid or hexaploid, is not straight [genetics]. So, mapping genes on chromosomes is not trivial - it is complicated. At that time people did not have an idea how to quickly map genes on chromosomes. When genes are such that they are not present on all chromosomes, they don't segregate as diploids but as haploids, then it is

easier. So a small number of genes have been mapped, but their chromosomes were very bare.

So this man, Sears in Canada had worked out a method by which you could quickly place genes on their chromosomes. And his idea was very simple. That he had made a set of what are called abnormal or aneuploid lines which have either one chromosome extra or one chromosome short. So Sears lines..he made aneuploid lines, plus one series that is where each chromosome was present thrice plus an extra one, and another series where each chromosome one less. So because there are it is a triploid situation you can still lose a chromosome and still survive so that you can make such lines in plants which is not possible in Drosophila you can lose the X chromosome and survive, so even in triploid plants you can lose one chromosome and survive. So this immediately made it possible by using these aneuploid lines to map genes quickly on chromosomes because when you make crosses with aneuploids, and look at their segregation, then this mutant gene will behave very unusually, because if it is an extra chromosome line then it has one chromosome extra and if it an aneuploid line it has one chromosome short. So the pattern of inheritance is different. So you can tell very easily which chromosome it is. Joshi had brought these lines from Sears in the institute and the idea was to map genes for rust resistance and that was my project.

Now that's a sort of a very long-term project, and what it means is that you have to make crosses with each gene that you want to map, and you have to cross with 21 lines, because that is the number of chromosomes in wheat and then the progeny of each line has to be examined. That's tedious. So first six months, in fact, Joshi said, 'So look, in order to do this you will have to do a fair amount of cytology, to look at chromosomes,

to recognize whether they are normal or not." The system there was like in our labs - he put me onto another person among his colleagues, and he was to teach me how to do some cytology. Then I began to go to the pathology department to learn how they test for resistance to rust. How you basically spray plants and put them in glass houses. In the lab I was doing cytology. And you had to wait. You see, in genetics, you time your crop and your crosses are made at a certain time later in the year. So later in winter the wheat flowers and then you get the crop. So between summer and the coming winter I had all the time. So during that time I had a lot of time to read...

Indira Chowdhury: So this is also hands-on experience of plant genetics.

Obaid Siddiqi: So I was learning these other things. So I had nothing much to do for seven months or eight months, So that is the time when I actually spent a lot of time in generally reading in the library, not only in the line in which I was working, but in other areas of genetics, especially what was going on in microbial genetics. By then I knew that DNA has been discovered, but the impact of DNA on general genetics was still not very strong. But the impact generally of microbial genetic had already begun to be noticed, because people were aware of biochemical genetics, the fact that genes make enzymes, this was work from Neurospora - they already had Neurospora lines, and similar work was being done with yeast, Lindegren in Denmark – he was working with yeast. These were the two main organisms which were known. Bacterial genetics had begun, because in 1953, Lederberg had discovered recombination in bacteria and that work had by then already been very well known. Basically he was building on biochemical genetics that had been done in Neurospora and yeast to do genetics in bacteria. He had shown that you have mating types in bacteria, and you can cross bacteria by mixing.But all the

sophisticated bacterial genetics - that is how chromosomes go from one bacteria to another - gene transfer in conjugation - this had not been done. So it was not clear how recombination is taking place.

In the universities nobody had any inkling [that] these things [were] going on.The remarkable difference I noticed was that in the university, there was no awareness of contemporary world science -zero awareness of what is happening in the world. But a reasonable amount of awareness of the areas in which your professors are working or in which you are doing a problem. Because they suggested the papers, problems, professors, the names that you came to know also. So you thought of that as your science, but you didn't have an idea of what is important in world science. [It was] very much parochial discipline-wise. You could do taxonomy and pathology and you would know things about that.

But what happened in IARI was that all that changed because of my contact with this microbial genetics group. And I was very interested purely because of philosophical reasons, in the nature of the gene in any case. Because my interest in Lysenko. I had read a fair amount - I was familiar with Muller's papers and I had read some history of genetics when I had come. So in history of genetics, Muller has a very prominent place because he was philosophically very concerned with this question in the 1930s and he wrote very seminal papers about what the gene is and how it works.

Indira Chowdhury: So coming back to what you did in Delhi…

Obaid Siddiqi: So what I did was, wheat genetics, I learnt cyto-genetics, I learnt a little bit of plant mycology, rust, about rusts how to test rust resistance and then end of the winter I started planting wheat. We took a set of things which were known - varieties

which were resistant to rust - crossed them each to these 21 monotonic lines. With the hope that when we look at the first generation progeny and the second generation, it would come in the third year – we would be able to map the genes for resistance. And that idea I was very interested in - to make rust resistant.

So I did that - the wheat crop was sown, in April the wheat crop ripened. And we were all relaxing and waiting and then came a hail storm. In one evening the crop was totally destroyed. So that was end of that.

Indira Chowdhury: It must have been devastating!

Obaid Siddiqi: Devastating! I didn't even realize it. I had come back - we were sipping coffee and this hail was falling. Then people came looking for me, and said, "Hey - you know, what is happening, you must go and see. The farm and the fields are [destroyed] like this!" I didn't even go. Others ran to look at because there were many others in the same situation. Anyway, next day we went, the crop had died - completely fallen – because when hail falls it completely cuts the plant across. So people were all trying to recover [what they could] because you know you cross the plant and then you bag the pollen, and you tie it and put numbers. So people were trying to recover wherever they could - they had all got mixed up – half of them were torn – these were paper bags. That was the story - end of the year.

I really didn't know what to do. The two people that I talked to - Swaminathan was one and Joshi the other. Dr. Joshi was very nice [about it]. So one option was that I continue, the other was that I leave this and the third was that I go back and then come next year when the time for [planting] is right. That meant that I would have to go back and come back in winter next year, and discontinue my leave. By then we had got to

know each other well. Joshi said 'Don't worry about salary and money, I will get you a fellowship.' He said, ' You don't need to even do this. I will get other people here to repeat all the crops. So you need to come back only in April. Whatever you did, you have a record - we'll just repeat all this. You have [done things] up to this stage, I will get assistants to do everything and you come back later.' He was very encouraging.

Then I went to talk to Swaminathan and I had a brief conversation with him. And Swaminathan gave me very good advice. He said 'Look, I think that whatever you could learn here, you have already learnt in this one year. (Laughs) And I know your interests are different, you are interested in microbial genetics; you are interested in fundamental properties. I think you should just get out of this place and go abroad.'(Laughs). That's all he had advised.

So I hadn't thought about this seriously until then. My friend Natarajan and so on, they were all saying that 'Look, this is not the thing to do. They had already very seriously planted this idea that this is not a good area – if you want to understand fundamental genetics then you go [some other] to a place.' At that time I didn't decide but I asked [Swaminathan] where I should go and what is it that I should do.

Milislav Demerec's lectures in Delhi: Introduction to the work of Guido Pontecorvo

[Now] that year in Delhi there was a man, [Milislav] Demerec – he was a bacterial geneticist who had then become the Director of Cold Spring Harbor laboratory. He was American – and actually he may have had a close connection with Dobzhansky. So Demerec gave a set of lectures in which he described what he was doing and a lot of

his work at that stage was concentrated on using recombination to study structure of genes. So as part of those lectures he described what [Guido] Pontecorvo had done. Because this idea was spelt out in 1951-52 in a paper by Pontecorvo about what genetics can do in understanding gene structure. Very strongly influenced by Muller's ideas. So that was the first time I heard of this work. So when I talked to Swaminathan, he said, "Write to these people and then see what they say."

I decided to discontinue because in either case they were saying you go back. So I had my leave cancelled [and went back to Aligarh]. Asiya was in Aligarh any way. And then I wrote to [Pontecorvo]. I knew that I wanted to go to a lab which is interested in gene, gene structure, gene function. By then I was reasonably aware - I knew that DNA had been discovered. But DNA did not explain many things, it was not known how genes make proteins; for example, I knew that in crossing over, classically it was discovered that the chromosomes break down and rejoin, but how it happens in DNA was not possible for me to understand. Some of the properties of crossing over are such that they cannot be easily explained by imagining the DNA breaking down. The recombination problem wasn't solved. And actually what genes do to proteins – the coding – Crick hadn't spelt it out – how the sequence of amino acids was determined. By then I was already aware. My choice got easily determined.

So when I came back I had read Pontecorvo's 1952 paper By then this was already too old - because this was 1957 – and he was beginning to veer towards human genetics. No [longer] working with the fungus - Aspergilus. He had done all his work with that. He developed all his early ideas with that and then he thought that it was

applicable to humans. So he had begun work with humans. But his lab – a small lab – was still [functioning].

I didn't want to go to America because of political reasons. I didn't think America was a right place to go to. But England had just two or three genetics departments. Cambridge was one which had established a Genetics Department and Glasgow was probably the third place to establish a Genetics Department. The second may have been somewhere in Edinburgh. The reason is that in all these places Biology was [taught] in Botony, Zoology, Physiology, Anatomy, historically [that is how] it developed. I looked at what was going on in the Cambridge Genetics department. The Head of Genetics in Cambridge had been Fisher [all those years]. And that had a highly oriented department towards mathematical genetics. People like Haldane who had worked there, in the bio-chemistry department. So he was not instrumental in setting up Genetics. So two places I knew by then which had genetic departments out of which Cambridge, Glasgow and Edinburgh. In fact, Edinburgh had a Genetics departments which had been established earlier in which Waddington had worked. So these choices were there. Waddington's interests were more in development, and Pontecorvo had actually worked there. And so I didn't have too many choices. I didn't want to go to [Cambridge], I had no interest in mathematical genetics - a lot of complicated [things?] – I didn't want to do that. I also counted other places like Lindegren in Denmark. But I didn't really want to go there. There was very little choice.

So I wrote of. I think I didn't read, write to any of the others. I only wrote to Pontecorvo, I said I have read all your papers and I am interested in working with you. I am a lecturer here in town, but also would like to work towards a Ph.D. [It was] as

straight and simple as this. I got a reply from him, which was also a very straight answer. [Laughs] He said that `Dear Mr Siddiqi, I read your letter. In my experience in working with people [from] other places has been such that I find it very difficult to assess what these standards of teaching in different places are. I have made a rule never to admit anyone in my lab unless he is willing to come and take an examination with me. [Laughs] So, you know, if you are willing to come and take an examination I will admit you. [Laughs].

Indira Chowdhury: So, there was no offer of a scholarship or anything. You just agreed to go there?

Zakir Hussain

Obaid Siddiqi: No, no, no scholarship, nothing. First of all it was a great deal. I don't know whom I discussed it with. But then I said, he cannot be serious about this! If I go there and take an examination he says no – I will be minus Five thousand! [Laughs] Of course, it meant that I would have to raise money. England in any case money was not easy to get.

Zakir Hussain tried to get me back to the University and get me a deputation [leave]. But I didn't want to do that because I had already lost one year. So I worked it out. I said let me go. I had a salary in the university. I had to take a leave, I would get some money and even if I can get a small support from somewhere. That is where Dr. Zakir Hussain helped me. There was a small private foundation in Bhopal [The Sultan Jahan Foundation]. I contacted the people I knew and the man who had connections with

them said, you know, if Zakir Hussain writes a letter for you [Laughs] they will give it without any fuss. Zakir Hussain by then had left the University. He was not in University any more. He was the Governor of Bihar. But he had come for something. I went and saw him. He said to come with him in the car to the station. So I just got into the car I explained this to him. He said `Alright - leave the address with me. I will write to this chap.' [Laughs]

So, once he said that, I sort of made up my mind to go. I said money or no money I am going now because I didn't want to wait and see and what happens. That's how the decision to go to Glasgow was made. We talked - Asiya and I. Asiya didn't want to stay alone. She also wanted to go back [to England]. She had been an under graduate at Oxford. She had done her DPhil and come to the university and she had this idea in her mind that she wanted to go back and do her Ph.D. So, I said you think about it.

unclear on tape. Was this a BPhil?

[End of Session Two]