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CARL DJERASSI (depoimento, 1977)

Rio de Janeiro 2010

Ficha Técnica

<u>tipo de entrevista:</u> temática <u>entrevistador(es):</u> João Batista de Araújo E Oliveira <u>levantamento de dados:</u> Equipe <u>pesquisa e elaboração do roteiro:</u> Equipe <u>sumário:</u> Equipe <u>técnico de gravação:</u> Clodomir Oliveira Gomes <u>local:</u> Stanford - -- - Eua <u>data:</u> 06/01/1977 <u>duração:</u> 45min <u>fitas cassete:</u> 01 páginas: 13

Entrevista realizada no contexto do projeto "História da ciência no Brasil", desenvolvido entre 1975 e 1978 e coordenado por Simon Schwartzman. O projeto resultou em 77 entrevistas com cientistas brasileiros de várias gerações, sobre sua vida profissional, a natureza da atividade científica, o ambiente científico e cultural no país e a importância e as dificuldades do trabalho científico no Brasil e no mundo. Informações sobre as entrevistas foram publicadas no catálogo "História da ciência no Brasil: acervo de depoimentos / CPDOC." Apresentação de Simon Schwartzman (Rio de Janeiro, Finep, 1984).

A escolha do entrevistado se justificou pela ocupação em cargos relevantes no meio científico internacional. Destacando-se sua trajetória como diretor do Programa de Cooperação Científica da Academia de Ciências dos Estados Unidos com o CNPq, e como professor do Departamento de Química da Universidade de Stanford.

temas: Carl Djerassi, Conselho Nacional de Desenvolvimento Científico e Tecnológico, Empresas Estrangeiras, Estados Unidos, História da Ciência, Importação, Organização das

Nações Unidas, Pesquisa Científica e Tecnológica, Produtos Químicos, Protesto Político, Química, Rio de Janeiro (estado), Sionismo, São Paulo, Universidade Federal do Rio de Janeiro

Sumário

As atividades desenvolvidas na Cia. Syntex; o envolvimento com o Brasil: o contato com Walter Mors e o programa de colaboração científica entre a Universidade de Stanford e o Centro de Pesquisa de Produtos Naturais da UFRJ; a vinda de Ben Gilbert e Keith Brown para o Brasil; a participação na Academia de Ciências dos EUA; a experiência como diretor do Programa de Cooperação Científica entre a Academia e o CNPq; os entraves burocráticos à importação de materiais químicos; o sucesso desse programa; a química no Rio de Janeiro e em São Paulo; a renúncia à Academia Brasileira de Ciências em 1976, em protesto contra o posicionamento anti-sionista defendido pelo Brasil na ONU; a área de produtos naturais no Brasil: Otto Gottlieb e Walter Mors.

ENTREVISTA COM CARL DJERASSI

6/1/78

Entrevistador pelo GEDEC: João Batista de Oliveira

(revisado por Watter Mors)

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DJERASSI CARL. <u>CARL DJERASSI (depoimento, 1978)</u>. Rio, FGWCPDOC – História Oral, 1985 (História da Ciência – Convênio FINEP/CPDOC).

GEDEC – First we would like to know about your main professional activities here.

- C.D. I am a professor of organic chemistry at Stanford and also a president of Zoecon Corporation in the Stanford Industrial Park, a company that developed a new method of insect control.
- GEDEC You came from Wayne State University, right?
- C.D. Yes, do you want to go all the way back?
- GEDEC Just the main things.
- C.D. I was with Syntex Company in various positions for over 20 years. I was president of the Syntex Research, which is a research operation in Palo Alto. Before that, I was vice-president of Syntex Research in México. But I was also in an academic position at the same time. I came to Stanford in 1959. I was a professor at Wayne State University from '52 to '59, with some legal in México City. Before that I was with Syntex from '49 to '52. My own involvement with Brazil started in the '50's when Walter Mors was professor at the Instituto de Química Agrícola of the Ministry of Agriculture. Walter Mors spent a year as a Rockefeller fellow with me at Wayne State University. Then we decided on doing some collaborative work which, at that time, was supported by Rockefeller. It was in the same year of the establishment of Rio Centro of Natural Products of Chemistry in Brazil. In that year one of the two post-doctor fellows from my laboratory was working down in Brazil with Walter Mors.

One of the first persons selected was Ben Gilbert, the first to decide actually to stay there. At least half a dozen people who have gone down there wanted to stay but Ben Gilbert and Keith Brown were the only ones who stayed. There were people who spent several years in Belgium, at the University of Brussels, which also established very close ties, and probably would have stayed in Brazil if a position had evolved at the time. C.D. – It started in late 50's, around 1956 I think. What was still missing was a relationship with an academic institution and opportunity to set up the center at the University of Brazil. Professor Lacaz, in Pharmacy, was willing do to something in chemistry. There was no opportunity in chemistry. At that time people bought space and then moved to the University.

It was shortly after Walter Mote left the Instituto de Química Agrícola and getting involved full time. That's how this whole group established the Natural Products Group at the University.

In the late 60's I had been very much involved with the National Academy of Sciences, I had been one time the chairman of the Latin American Board of the National Academy until it was abolished and became a larger board called the Board of Science and Technology for International Development. I was always a member of it and was chairman till 1976.

One of the functions of this was to have an intimate, collaborative program of our National Academy with 1he Brazilian Section, the Conselho Nacional de Pesquisa at the time. One of the question raised was whether something could be done on a most significant basis in chemistry. I proposed that maybe we should institutionalize on a much larger scale, what we did in bilateral scale between the University of Stanford and the group in Rio with Walter Mors

and Ben Gilbert. We had to find some faculty members here in the U.S. and which Brazil wanted to establish Rio Centers and see whether they wanted to commit themselves to have both fellows from our laboratories working in Brazil for a couple of years. And this is the origin of our initial five-yearprogram between the National Academy of Science and the CNPq.

Again, it worked the same way. There were a few people who were interested and willing to stay there permanently in Brazil, and I think more would have stayed if there were more opportunities there. But actually I think it was just as well that they didn't stay because the real purpose of the program was to train Brazilians. And I think that, for that end, things really got going.

You're such a large country that you also utilized people who were willing to stay in Brazil. But, on the whole, given all the complications of the system, I think it worked reasonably well. What did not work – and it is just a problem that hasn't been solved in Brazil, nor in many other countries – was to cut their red tape in terms of importations of spear parts, chemicals and so on. I was sort of disappointed because I thought we had a chance to do it. But, that just didn't work. We had to find all kinds of special mechanisms of doing it. We were able to get chemicals because of this National Academy of Science quasi-official position, of AID, and of the Brazilian Science attachés in the Brazilian embassy in Washington, with very special...

I would almost call it semi-legal ways of expediting research in Brazil. But that is not the way to do this. We thought the Brazilian government would solve that problem. But it's the usual business in most Latin American countries.

The Customs service is a completely independent authority that couldn't care less about what's going on in research or in the Conselho Nacional or at the universities. The red tape is extraordinary. There is no question that it inhibits

research in a number of areas. In Natural Products fields in chemistry is very difficult.

GEDEC – There was one phase in the 50's and another one in the 60's. Was there a continuity between the two things?

C.D. – Natural Products continued all the way until the late 1960's. We got money from two places: from the National Science Foundation and from the Rockefeller Foundation. This was terminated in 1967 I think, because there was no question we had accomplished what we wanted in the National Products field. That was a really independent group, with a fair number of people in trade. A lot of people was funded – as it should be – by essentially Brazilian sources; not only Brazilians, but Brazilians were applying to it. And the umbilical cord was cut.

I had a great deal of interest and sympathy and I met the people when I carne down to Brazil in connection with the National Academy of Sciences, a program of which I was a chairman on the American side. But that became a complete independent thing in the late 60's, with Walter Mors and Ben Gilbert basically the main persons.

But, even then, Ben Gilbert could not get an academic positions at the university. An official position, I mean. As you well know, you have this extraordinarily archaic system, you inherited the worst aspects of the colonial Portuguese university red tape. In some places, like in Rio, you haven't busted it yet, in some other places like Campinas you don't have that. Since Ben could not get a permanent job at the University, eventually he went to the Navy establishment next to the airport and he still has his research relationship with the National Products center. But he doesn't have a formal position there.

- GEDEC In terms of the content of this first research, was it of international quality?
- C.D. Oh yes, definitely. No question about that. All you have to do is look at the publication record all the things that were published, of high quality, in international journals in the US, England or the International.

Dr. Egan. So there's no question about that, in some areas like alkaloids, it was one of the areas we worked very hard. It was of absolute international caliber.

- GEDEC Did they diversify in terms of products?
- C.D. Yes, definitely. They became more interested in parasitology, and had collaborative work on it. It was strictly of their own initiative. I was not involved with this. Really, all I started was a work in National Products with Brazilian sources. At that time it was with Amazon plants, later on there was a fair amount of work on marine chemistry working with National Products in the ocean off the Brazilian coast. But this was a complete effort on the part of Ben Gilbert, but also of Walter Mors collaboration with parasitologists in Bahia. I think this is still going on to a particular extent as a very interesting multidisciplinary program.

The other one of some interest is the one Walter Mors and I started just about the terminal stages, when we had this collaborative work going on and during the time of the US-Brazil National Academies of Sciences Program. It was the possibility of establishing a steroid industry in the north-east of Brazil.

- GEDEC That was the second phase in the 60's.
- C. D. It really started in the mid 60's, but it took longer than expected. From what I gather from the last couple of years it's becoming a significant...

That's what I liked about the Brazilian collaboration; that, in this case, eventually you took over completely, because that's what it should be. The relationship with people in the U.S., like myself, should be one of a professional friend-ship, but the initiative belonged exclusively to the original ones and that's what it turned out to be.

GEDEC – I understand Walter Mors went to Mexico for one year of training in Syntex.

- C.D. Not Walter Mors. We sent someone else from his group.
- GEDEC And that was the beginning...
- C.D. Yes.
- GEDEC And did you have any other contacts with the Brazilian academic scientific community at that time?
- C.D. Of course, we had the US-Brazil Chemistry Program. It was a bilateral one between Rio and São Paulo and on each trip I also went to Sao Paulo. But my own scientific collaboration was in Rio. We published dozens of papers together with people from Rio. I knew a lot of people in São Paulo but I was not doing any collaborate work with them.
- GEDEC But it is not a high progressive program...
- C.D. No, that was in Ho 11 and in high progressive program. One time I was very interested in Brazil. When I got there in 1954, I think it was before Walter Mors became a Rockefeller fellow, 1'm not sure. I met Hauptmann in São Paulo, who was very significant in the history of São Paulo chemistry by then. I was very interested in working with coffee. On the chemistry of certain products of coffee. I was interested in getting coffee oil. And Hauptmann would also work in that field, provided with a fair amount of study material. This is how I got to know him.

That was in 1954, when I carne to Brazil and since then I went there probably 20 times, almost once every year.

- GEDEC In a summarize, your initial contacts were through Walter Mors at the time of National Products. Besides that you had another general grant with the Brazilian Chemistry Departments in Rio and São Paulo.
- C.D. That was afterward and cane as part of the U.S. National Academy of Sciences with the Brazilian Research Council.
- GEDEC It was related with Walter Mors and...
- C.D. No, they were not involved in this. They were already an independent unit. That year we were to try to see if we were going to accomplish the same thing that was accomplished in the National Products fiels in other fields like organic chemistry of synthetics, organic chemistry of some material where the strength did not exist yet. They were really just Brazilian observers, but they were not participants in this US-Brazil formal chemistry program. And they shouldn't be because they were already beyond that stage. They really didn't need it. They were already faculty.
- GEDEC And were there groups developing this?
- C.D. Some of them did better than others.
- GEDEC Which ones?
- G.D. For example, physical chemistry and organic chemistry in São Paulo developed really very well under the circumstances. Synthetic organic chemistry in São Paulo also, to a certain extent. There were many more difficulties in Rio, primanly because of the political situation in the university. But the one in Rio that worked particularly well was in polymer chemistry with Eloisa Mano. It was a very successful group. The organic and synthetic programs in Rio did not work very well.
- G-EDEC Was it because mainly of the red tape and more incidents...

- C.D. Right. I have with me it's not that long, if you like to hear it for your record a letter I wrote to the president of the Brazilian Academy of Sciences, Aristides Leão. I knew him very well and respect him very greatly. It was written January 30, 1976. "My dear colleague. It is with sadness and a great deal of regret that I am writing this letter to you in your official capacity as president of the Brazilian Academy of Science in order to tender my resignation from your organization. Obviously all this is detailed explanation I am presenting you with and I would appreciate if this letter was distributed among the members of the council of the Academy", Have you heard about this letter?
- GEDEC No, I knew there was something.
- C.D. "I've been involved with collaborative work with various Brazilian scientists and various Brazilian institutions for approximately 20 years. And during that time I made at least that many trips to your beautiful country. My inter-action with Brazilian scientists was both informal and formal. And the latter involved particularly my participation, and at time also as chairman, of various programs between our National Academy of Sciences in the United States and your CNPq.

"The fact you elected me to membership in your Academy and that the Federal University of Rio de Janeiro honored me with an honorary degree are a probable indication that this collaborative work has been recognized and appreciated by Brazilians. I've travelled all over the world and had cooperative programs with scientists from many different countries, both in an informal capacity and member and chairman of the US National Academy and its Board of Science and Technology for International Development.

"From a personal standpoint I probably enjoyed my inter-actions with Brazilians more than in any other country. Due to that, it's particularly sad to write this letter. My resignation is prompted by Brazil's recent vote in the United Nations equating zionism with racism.

"I lived in Europe as a child during those days and I remember well the origin of German anti-semitism that was openly proclaimed, under the pretext of anti-zionism. Personally I have never been involved in any zionist movement, but the recent action in the UN made me, as well as many other jews and non-jews, at the very least, a theoretical zionist.

"Hence, according to Brazil's recent vote, this will find me at the theoretical of having and whatever all my life including discrimination against black citizens in my own country. I do not tolerate being granted a racist by Brazil. Theoretically I can understand the vote from some of the Arab countries in the United Nations. I can pity some of the African mini-states or Soviet puppets like Cuba that felt compelled to vote this way but I have only contempt for the vote of free independent countries like Brazil and Mexico that were the only American nations to participate in this vote. The simple explanation would be that Brazil voted that way because of its supposed dependence on Arab oil, in the hope of getting hard financial support.

"It's my understanding that the latter has not happened and if it did, it simply would mean Brazilian foreign policy was on sale to the highest bidder. As far as dependence from Arab oil is concerned, most Western European countries are equally dependent from such oil and not one of them voted the way Brazil did at the UN.

"To my knowledge, none of these countries had any reduction from oil exports from Arab nations as a result to their position at the UN. I can only conclude therefore, that Brazil's vote equating zionism with racism scared them out of principles and I simply find it shocking. "Just a few decades ago Brazil provided a haven for many refuge/s from European excesses and it seems sad your government has suddenly taken such a giant step backwards.

"I've waited several months before taking the step of resigning from the Brazilian Academy because I wanted to see whether there was any public outcry in Brazil by scientist and intellectuals to this UN position of your country. To ray knowledge there has been none. And it is my understanding that the Brazilian Academy has not reacted at all to this official Brazilian expression of anti-semitism. If I am wrong in this assumption I would be greatly relieved if you would inform me of any action the Brazilian Academy has taken in this regard.

"I shall obviously not terminate my personal relations with any Brazilian friends, but I find it impossible to be involved in any formal programs and memberships in Brazilian organizations. That, at least not as long as Brazil formal position equating zionism with racism stands.

"You may feel free to distribute and disseminate my letter of resignation to anyone in Brazil."

And I also say here "P.S. My resigning from the Brazilian Academy is not the only step I have taken. Last September I resigned from membership of the US-Brazil Chemistry Program, a program which I initiated, of which I was American chairman for a number of years and of which I have been very proud. Furthermore, early this year, Dr. Daniel Danes of the TJS Chemical invited me to participate in the stevoid industrialization project in Brazil and, as you can see from an enclosed copy of my letter of January 14, I declined."

I got a fair amount of letters from various people in Brazil who even sent me some clippings from the more courageous newspapers saying that there had been comments on this. That a number of scientist in Brazil were very much concerned about this. But, to my knowledge, nothing really had been done officially, at the government level, I mean. The scientist really making a public protest to the government. At least as far as I know. Maybe it was unrealistic of me to assume that this could have been done due to the political environment. But quite frankly I have to draw the same conclusion that I did in Europe from the 1930's and just contact.

- GEDEC You were born in Europe, right?
- C.D. Yes, Vienna.
- GEDEC And then you emigrated to the US?
- C.D. In 1939.
- GEDEC And you graduated here.
- C.D. Yes, I was 15 years old when I came here.
- GEDEC Are you still aware of developments in chemistry in Brazil in general?
- C.D. Yes. I haven't been to Brazil since then but I still have correspondence with Walter Mors, Ben Gilbert and I hear from a few other people. I saw Chagas just a month ago in Geneve in a UN meeting. A man whom I admire greatly. He was very die turbed with my letter, he spoke to me about this. He thought it wasn't fair because many Brazilians who felt very strongly. I appreciated him saying that. I told him only that in that case you haven't had much publicity outside of Brazil. As far as the rest of the scientific community is concerned, there weren't as many outcries as in other countries like France. I concluded they were pro-Arabs but on the side of Israel. Prance did not vote that way and the French scientists and many were not jews

- GEDEC Do you think that the developments programs of scientific technological frontiers of.
- C.D. I think there is a really first class group in the Natural Products fields. I didn't mention Dr. Gottlieb because he was not involved in collaborative work with me, but he is a remarkable man. Again, he could not get a permanent position in Rio and first worked with the Rural University and travelled around to Minas, to Paraná and many other places I forget. Eventually he got a position in São Paulo. But again he was internationally recognized as a Natural Products chemist.
- GEDEC Preliminary training personnel and sending post doctors here?
- C.D. In fact, there was people similar to Gottlieb from England he's done similar work.
- GEDEC His efforts were related to synthetics?
- C.D No.
- GEDEC Are they goint to produce synthetics in Brazil now?
- C.D. No, that has nothing to do with it. I haven't been with syntex since 1972, so I can't really tell you from such intimate knowledge. But I would be rather surprised if he had anything to do with this. These attempts do do it in Brazil were made by European countries who were interested in utilizing your raw material. Actually, at this stage, there are no Americans anyway, if I can call synthetics working on a material. The only companies doing this are European ones. Therefore it ought to be either by Europeans com panies or by Brazilians.
- GEDEC Do you think they will reach mass production?

C.D. – They can, I don't know whether they are. I don't have that intimate information anymore. I last talked to Walter maybe a year ago.