

SCATTERING ELECTRONS IN BUDAPEST (AND ELSEWHERE)

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"...vapours... full of nimble, fiery and delectable shapes"

Shakespeare, Henry IV, part II, act iv, scene iii, line 103.

ABSTRACT

Some of the recent research of the Budapest Electron Diffraction Group is described in anecdotal—historical perspective (as suggested by the Editor of the *Journal of Molecular Structure*). The importance of international cooperation is emphasized.

INTRODUCTION

Some time ago, my friend Alan Mackay, a British crystallographer, sent me his painting entitled electron diffraction (reproduced here as Fig. 1). Alan painted it in 1960, some time before I started studying electron diffraction in 1964/65 as an undergraduate student with Professor Lev Vilkov at the Moscow State University. When I had completed my Diploma Work I came back to Budapest. I was looking for a place in molecular structure research. I would automatically have had a place, had I studied radiochemistry as my stipend originally required.

In Hungary, 1965 was a good time to start working in new areas of fundamental research. Professor Sándor Lengyel was organizing a research unit for structural chemistry as part of the network of institutes of the Hungarian Academy of Sciences. This research unit was established on the campus of the Science Faculty of the Eötvös University in Puskin utca where it is still based. There was a difficult period towards the end of the seventies. At that time the Group operated as part of the Central Research Institute of Chemistry, but the pressure for and lack of outside funding seemed likely to jeopardize this area of research. Then came the invitation from Professor Tamás Székely, Director of the Research Laboratories for Natural Sciences to join his institution.

In 1965/66 I started building my equipment by occasionally borrowing an electron optical system, at first for days, then for weeks. I was helped enormously by the workshop foreman, Mr. József Hernádi (Fig. 2), who was