Lessons Learned From my First Structures Brian Toby¹

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As an undergrad, I worked on several single-crystal structure determinations. I also rehabbed a CAD-3 diffractometer that had previously been written-off-for-dead. Back when I started, data analysis was done with decks of computer cards that were submitted for batch processing (e.g., one waited for minutes, hours or perhaps even overnight to get a time slot) on the [one] campus computer. However, before I graduated, we advanced to creating our "card decks" on computer terminals and submitting them to the mainframe over telephone lines -- and then we waited. Terminals seemed like such a major step forward at the time. Taking this presentation as a chance to reminisce about how much crystallography has changed from the beginning of its second half-century, I will also consider some of the concepts that have not changed. From my initial foray into crystallography, two of those structures in particular taught me a few important lessons that are still valuable in my career in crystallography.