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6. The Quadric Line Complex.

This chapter occupies a somewhat anomalous position in the book: it falls, in fact, somewhere between a chapter and a protracted exercise. No new ground is broken: even the discussion of quadrics in Section 1 represents a gap in the previous material rather than further development. There are three reasons for its inclusion:

First of all in Chapters 2 and 4 we have discussed in some detail the theory of curves and surfaces; it is natural now to look at varieties of higher dimension, such as threefolds. Unfortunately, there is for threefolds no systematic body of knowledge comparable to what we have for curves and surfaces. Whatever the reason, the fact is that the only wholly successful treatment of threefolds has been in special cases; this is one such.

Second, while we have tried to provide application of the theory and techniques developed in this book, we have not yet encountered a problem broad enough to bring to bear the full range of our techniques. The quadric line complex is just such a problem: in the course of our analysis of it we will have