the Chern classes as well as exhibiting directly the type and positivity properties in the complex analytic case. This is carried out in the beginning of Section 3; and in the second part we prove that the Chern classes are Poincare dual to the basic Schubert cycles in the Grassmannian. This identifies the differential-form Chern classes with the usual topological ones, at least modulo torsion, and establishes the basic link between the Chern classes and enumerative questions in algebraic geometry, a recurrent theme in the remainder of the book.

In Section 4 the currents and Chern classes are combined to establish two global formulas, the holomorphic Lefschetz fixed-point formula and Bott's residue formula. Although the external circumstances are different, in both cases we use the intersection-and-smoothing theory of currents to reduce the proof to an application of Stokes' theorem with singularities is ubiquitous throughout the general theory presented in the book — e.g. it appears in Section 1 of Chapter 1, throughout Chapter 2, and again in the general residue theorem given in Section 1 of Chapter 5 — and we have to some extent formalized it in Section 1 of this chapter. The "principal part" of the singular differential forms inevitably turns out to be the Bochner–Martinelli kernel — a glance at the index will attest to its presence. Here we wish to point out that what is important is not so much its specific formula but rather its role as a fundamental solution for the $\bar\partial$-equation on $\mathbb{C}^n$. This is brought out in Section 1 of Chapter 5, the upshot of which is that any such fundamental solution would do — what is essential is the implicit duality. On the other hand, the Bochner–Martinelli kernel is characterized among all fundamental solutions by unitary invariance, and this particular symmetry is manifest in the aforementioned two