

ON SOME TENDENCIES IN GEOMETRIC INVESTIGATIONS.*

REMARKS ADDRESSED TO MY STUDENTS.†

BY PROFESSOR CORRADO SEGRE.

I.

CHASLES at the end of his *Aperçu historique* says: "Dans la géométrie ancienne les vérités étaient isolées; de nouvelles étaient difficiles à imaginer, à créer; et ne devenait pas géomètre inventeur qui voulait.

"Aujourd'hui chacun peut se présenter, prendre une vérité quelconque connue, et la soumettre aux divers principes généraux de transformation; il en retirera d'autres vérités, différentes ou plus générales; et celles-ci seront susceptibles de pareilles opérations; de sorte qu'on pourra multiplier, presque à l'infini, le nombre des vérités nouvelles déduites de la première: toutes, il est vrai, ne mériteront pas de voir le jour, mais un certain nombre d'entre elles pourront offrir de l'intérêt et conduire même à quelque chose de très-général.

"Peut donc qui voudra, dans l'état actuel de la science, généraliser et créer en géométrie; le génie n'est plus indispensable pour ajouter une pierre à l'édifice."

A half-century has passed, and during this period geometry has made immense progress.‡ The study, projectively, of

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† Yielding to the kind persistence of the editor of the *Rivista di Matematica*, I repeat here, connectedly and with some additions, certain considerations which from time to time I have had occasion to present at the university to students specializing in mathematics, and which especially aim to caution those who wish to devote themselves to scientific research against certain faults and errors into which young investigators — and particularly young geometers — easily fall. Such remarks will not seem inappropriate at the present time, when many young men in Italy are engaged with the study of geometry. But by their nature and scope, they can present interest and novelty only to beginners: to them only may this paper be of some value.

‡ To get an approximate idea of the wealth of research which has been