Letter to Diéudonne 29/9/1965

Dear Diéudonne,

Thank you for the letter of the 24th and for the table of contents of par. 16 to 19. I would be happy to receive one day the tentative table of contents for par 20 and 21. It's ok to adjoin them to volume 4 of Ch. IV. But how are you going to subdivide my old par. 20 and what will be the titles of the two parts?

Since I am beginning to be lost in the plan and it is often convenient to be able to refer to (without saying too many stupid things)[82] to a number in a paragraph, I give you here what seems to me to be the actual plan, tell me if you agree.

20 ???
21 ???
22 Linear systems complements about the Picard group
23 GRASSMANIANS
24 Smooth forms ordinary quadratic singularities
25 Hyperplane sections et bordel[83] [Fr]
26 Resultant and discriminant
27 Infinitesimal extensions

The 25th is at risk in addition of being too long and you may wish to subdivide it into two. Still $27 = 3^3$ is a very pretty number!

It is out of the question that I should publish the appendix to para. 18 under my name. Your formulation (writeup) has almost nothing in common with the vague manuscript notes that I sent to you.

and limiting myself to saying: Even if I had given you any you just have to do the same as for que for complete rings...

It would be on the other hand a pity if your work about its formal setting should be lost for the possible users (il finit toujours par s'en trouver...) There can always be some to be found.

That is why I ask you to reconsider the question of making a 'joint paper.'[84]

As for par. 20, 10.9.1 it is of course necessary to use the fact that the set of points of Z_λ where F_λ restricted to the fiber is of the depth $> n$ given is constructible (we have to prove the same meme in par. 12 that it is open with the assumption of flatness and of finite presentation which we make). Since its inverse image in Z is everything [Fr] that is already a little further than than λ. This is really always the same argument qui revient!

That repeats itself.

Bien a toi (all the best) A. Grothendieck

[82](original is in off-color French)
[83]and the rut of the shiff( )(original is in off-color French)
[84]crossed out in the original from this point till bien a toi [Tr]