pencil $X_{p_2} = \sigma(p_2) \cap H$ of lines of X through p_2.
Let $h_1 = h_2'$, and choose $p_3, p_4 \in h_1$, p_1 so that $\{p_1, p_2, p_3, p_4\}$ forms a tetrahedron. $\Rightarrow$ Clearly

$$p_i = \bigcap_{j \neq i} h_j, \quad h_1 = \overline{p_2, p_3, p_4} \quad h_2 = \overline{p_1 p_3 p_4} \;\&\; h_3 = \overline{p_1 p_2 p_4}$$
$$h_4 = \overline{p_1 p_2 p_3}$$

and $h_1 = h_2'$. $\Rightarrow$ $h_1 = h_1 \cap h_2'$ is a α-plane.
But anyway, we can show that, as for h_1, $h_3 \cap h_2'$ contains p_3', $h_4 \cap h_2' \ni p_4'$ $\Rightarrow$ $h_2' \ni p_1', p_3', p_4'$.
Similarly, $h_3' \ni p_1', p_2', p_4'$. $h_4' \ni p_1', p_2', p_3'$.
$\Rightarrow$ $p_1' \in h_2' \cap h_3' \cap h_4'$
Since $\{h_i'\}$ is linearly independent, $\{p_1'\} = h_2' \cap h_3' \cap h_4'$.
In general, $p_i' = \bigcap_{j \neq i} h_j'$. i.e., the points $\{p_i'\}$ are the vertices of the tetrahedron T' having sides $\{h_i'\}$.
$\lrcorner$

The line complex X thus associates to any tetrahedron T in $\mathbb{P}^3$ a "dual" tetrahedron T^* both inscribed in and circumscribed about T.

⌜ I think, the definition of 'inscribe' is as follows:
Given a tetrahedron T with sides h_1, h_2, h_3, h_4 and vertices

$$p_i = \bigcap_{j \neq i} h_j,$$