of J.
If $M \subset \mathbb{P}^n$ is a submanifold of projective space, we usually call the restriction of $[H] \to \mathbb{P}^n$ to M simply the hyperplane bundle on M; by functoriality, it is the line bundle associated to a generic hyperplane section $\mathbb{P}^{n-1} \cap M$ of M.

$$M \overset{i}{\hookrightarrow} \mathbb{P}^n \qquad \begin{array}{ccc} i^*[H] & \longrightarrow & [H] \\ \downarrow & & \downarrow \\ M & \overset{i}{\hookrightarrow} & \mathbb{P}^n \end{array}$$

We call $i^*([H])$ the hyperplane bundle on M.

$$\begin{array}{ccc} \mathrm{Div}(M) & \longrightarrow & H^1(M, \mathcal{O}^*) \ni i^*([H]) \\ \| & & \\ H^0(M, \mathcal{M}^*/\mathcal{O}^*) \ni H\cap M & & \uparrow i^* \\ i^* \uparrow & & \\ H^0(\mathbb{P}^n, \mathcal{M}^*/\mathcal{O}^*) & \longrightarrow & H^1(\mathbb{P}^n, \mathcal{O}^*) \\ \cup\!\!\!\shortmid & & \cup\!\!\!\shortmid \\ H & \longmapsto & [H] \end{array}$$

3. Let M be a compact complex manifold, $V \subset M$ a smooth analytic hypersurface. Recall that we defined the normal bundle N_V on V to be the quotient line bundle

$$N_V = \frac{T'_M|_V}{T'_V}. \qquad \text{(See P71)}$$

We defined the conormal bundle N_V^* to be the dual of N_V; it is the subbundle of $T_M^{*\prime}|_V$ consisting of cotangent vectors to M that are zero on $T'_V \subset T'_M|_V$.

$$N_V^* = \mathrm{Hom}(N_V, \mathbb{C}) = \mathrm{Hom}\left(\frac{T'_M|_V}{T'_V}, \mathbb{C}\right)$$

$$0 \to T'_V \longrightarrow T'_M|_V \longrightarrow \frac{T'_M|_V}{T'_V} \longrightarrow 0$$