

$$p+q = n-1.$$

Q. E. D.

$$\text{From } 0 \rightarrow \Omega_M^p(-V) \rightarrow \Omega_M^p \rightarrow \Omega_M^p|_V \rightarrow 0,$$

$$\begin{array}{ccccccc} H^q(M, \Omega_M^p(-V)) & \rightarrow & H^q(M, \Omega_M^p) & \rightarrow & H^q(M, \Omega_M^p|_V) & \rightarrow & H^{q+1}(M, \Omega_M^p(-V)) \rightarrow H^{q+1}(M, \Omega_M^p) \\ \parallel_{p+q < n} & & & & & & \parallel_{p+q+1 < n} \end{array}$$

$$\Rightarrow \begin{array}{ll} H^q(M, \Omega_M^p) \cong H^q(M, \Omega_M^p|_V) & \text{if } p+q+1 < n \\ H^q(M, \Omega_M^p) \rightarrow H^q(M, \Omega_M^p|_V) & \text{if } p+q = n-1 \\ \text{injective} & \end{array}$$

$$\text{From } 0 \rightarrow \Omega_V^{p-1}(-V) \rightarrow \Omega_M^p|_V \rightarrow \Omega_V^p \rightarrow 0,$$

$$\begin{array}{ccccccc} H^q(V, \Omega_V^{p-1}(-V)) & \rightarrow & H^q(V, \Omega_M^p|_V) & \rightarrow & H^q(V, \Omega_V^p) & \rightarrow & H^{q+1}(V, \Omega_V^{p-1}(-V)) \rightarrow \\ \parallel_{\text{if } p+q-1 < n-1} & & & & & & \parallel_{p-1+q+1 < n-1} \\ & & & & & & \oplus \\ & & & & & & p+q < n-1 \end{array}$$

$$\begin{array}{ll} \text{if } p+q < n-1 & H^q(V, \Omega_M^p|_V) \cong H^q(V, \Omega_V^p) \\ \text{if } p+q = n-1 & H^q(V, \Omega_M^p|_V) \rightarrow H^q(V, \Omega_V^p) \text{ is injective.} \end{array}$$

$$\text{Thus, if } p+q \leq n-2, \quad \textcircled{2} \cong H^q(V, \Omega_M^p|_V) \\ H^q(M, \Omega_M^p) \cong H^q(M, \Omega_M^p|_V) \cong H^q(V, \Omega_V^p)$$

$$\begin{array}{ll} \text{if } p+q = n-1 & H^q(M, \Omega_M^p) \rightarrow H^q(M, \Omega_M^p|_V) \text{ is injective} \\ & H^q(V, \Omega_M^p|_V) \rightarrow H^q(V, \Omega_V^p) \text{ is injective.} \end{array}$$

$$\Rightarrow H^q(M, \Omega_M^p) \rightarrow H^q(V, \Omega_V^p) \text{ is injective.}$$

It remains to convince myself that $H^*(M, \Omega_M^p|_V) \cong H^*(V, \Omega_V^p|_V)$.