$$\begin{array}{ccc}
\pi_k(X, A, x_0) & \xrightarrow{\quad q_* \quad} & \pi_k(X/A, *, *) \\[2mm]
\Big\uparrow{\scriptstyle r_*}\ {\scriptstyle\cong} & & {\scriptstyle\cong}\ \Big\uparrow{\scriptstyle s_*} \\[2mm]
\pi_k(M, M_2, \bar{x}_0) & \xrightarrow{\quad \varphi_* \quad} & \pi_k(C, C_2, \varphi(\bar{x}_0)) \\[2mm]
\Big\uparrow{\scriptstyle i_*}\ {\scriptstyle\cong} & & \Big\uparrow{\scriptstyle i'_*} \\[2mm]
\pi_k(M_1, M_1 \cap M_2, \bar{x}_0) & \xrightarrow[\cong]{\varphi|_{M_1 *}} & \pi_k(C_1, C_1 \cap C_2, \varphi(\bar{x}_0))
\end{array}$$