Factors that affect image quality in mammography and in particular phantom imaging will be reviewed. Steps involved in assessing causes of artifacts due to film processing and x-ray equipment will also be reviewed. Clues to look for to identify how films were transported through the processor will be described. Examples of typical artifacts such as guide shoe marks, shadow images, pick-off, wet pressure, delay streaks, run back, skivings, crease marks, static, grid and filter will be illustrated and discussed.