We are now in a period of time where imaging protoplanetary discs at high angular resolution is possible, both in the mm-radio and in stellar scattered light. These two techniques has bought two mysteries: highly asymmetric protoplanetary discs and highly misaligned protoplanetary discs. I will describe ideas as to how these might be linked to interactions with embedded companions and how we might tests these ideas with future observations. In some cases these structures point to interactions with a planet, whereas in other cases they point to interactions with a binary star.