On Completing Partial Latin Squares with Prescribed Diagonal

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For more than 30 years, Anthony Hilton has worked on and off on the problem of completing partial idempotent Latin squares and analogues of it. This has led to many results in the area, including the solution to some hard problems. One problem which is still unsolved is that of finding a necessary and sufficient condition for a partial Latin square of side r to be embeddable in a Latin square of side n with given symbols on the diagonal. Perhaps the time is ripe for this problem to be attacked again.