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**Alexander Zupan\*** ([alexander-zupan@uiowa.edu](mailto:alexander-zupan@uiowa.edu)), 15 MacLean Hall, Department of Mathematics, The University of Iowa, Iowa City, IA 52242-1419. *A troublesome embedding of the unknot.*

In 1934, Goeritz exhibited a nontrivial diagram of the unknot that such any sequence of Reidemeister moves converting this diagram to the zero crossing diagram increases the number of crossings of the diagram. As an analogue, we produce a nontrivial embedding of the unknot such that any isotopy from this embedding to the thin position of the unknot increases knot width in the sense of Gabai. This resolves a question of Scharlemann, and we apply our result to demonstrate that the width complexes for knots developed by Schultens have infinitely many local minima that are not global minima. (Received September 22, 2010)