A FOUR SEASONS WORD NETWORK

A. ROSS ECKLER
Morristown, New Jersey

In the June 1938 issue of The Enigma, the official organ of the National Puzzlers' League, Ab Struse (David Shulman) wrote:

The New York Sun carried a letter in its 'What Do You Think' column that should be of general interest to word-changers in the Krewe. It asked readers if they could change *winter* into *spring*. Two incorrect answers were submitted...but it can be done. However, I had recourse to an obsolete word before I could do it in sixteen moves.

This problem can be generalized: can the four seasons SPRING, SUMMER, AUTUMN, WINTER be embedded in a single word network based on words found in boldface (or inferred forms thereof) in Webster's Second or Third? Such is the problem posed by Rex Gooch in "Snakes and Ladders" in the May 1998 Word Ways.

Let's tackle it one season at a time. SUMMER to WINTER is the easiest transition, and it was first essayed by Lewis Carroll: WINTER-winner-wanner-wander-warder-harder-harper-hamper-damper-damped-dammed-dimmed-dimmer-simmer-SUMMER. The shortest Websterian ladder appears to be Leonard Gordon's WINTER-linter-linier-limier-limmer-simmer-SUMMER, reported in "Lewis Carroll's Word Ladders" in the November 1989 issue. This can be reduced to five steps if Oxford English Dictionary words are used, as Rex Gooch demonstrates: SUMMER-sumner-sunner-sinner-sinter-WINTER (SUNNER is not a sunbather, but an obsolete variant of SOONER, found in a 1432 citation). Four steps would be the irreducible minimum.

Next in order of difficulty is SPRING. In SUMMER to WINTER, both words have the consonant-vowel pattern CVCCVC; here, one must change a CCCVCC pattern to a CVCCVC one: SPRING-sering-serine-serins-series-serves-server-selver-silver-silker-sinker-sinter-WINTER.

By far the hardest to connect is AUTUMN; in fact, it appears impossible to do it using Websterian words. The nearest two, AUBURN and AUTOMA, are two steps away, and neither connects with the main network (AUBURN goes only to ALBURN, and AUTOMA goes nowhere). There are a host of Websterian words three steps away, a number in the main network. A type-collection:

AUThor	AsThMa	fUTUre	-U--MN
AUgUry	AsTerN	-UT-M-	meTUMp
AU--M-	AssUMe	bUTtoN	inTUrN
AUstiN	AlbUrN	kUrUMa	--T-MN
AsTUte	A---MN	sUlUaN	colUMN

If one admits words from the OED the AUTUMN connection is possible.
AUTUMN transforms to AUTUME, an obsolete word meaning "to affirm"
(with a 1661 citation). This in turn converts to AUTOME, a word listed in
Thomas Blount's *Glossographia* (1656-81), one of the "hard word" dic-
tionaries of that era. (It is a variant spelling of the Websterian AUTOMA,
itself an erroneous form of "automaton".) AUTOME steps to ATTOME, a
15-17th century spelling of "atom", which completes the bridge to the
Websterian ATTONE. This may readily be connected to SERINS and hence
to the word SPRING: ATTONE-astone-astore-astare-astart-astert-astern-
altern-alters-alders-aiders-siders-seders-sewers-sewens-sewins-SERINS.

If one allows transposition after replacing a letter, then a minimum-
length network is easily achieved:

AUTUMN
UTINAM
INMATE
RETAIN
WINTER
SINTER-STRING-SPRING
MISTER
SIMMER
SUMMER