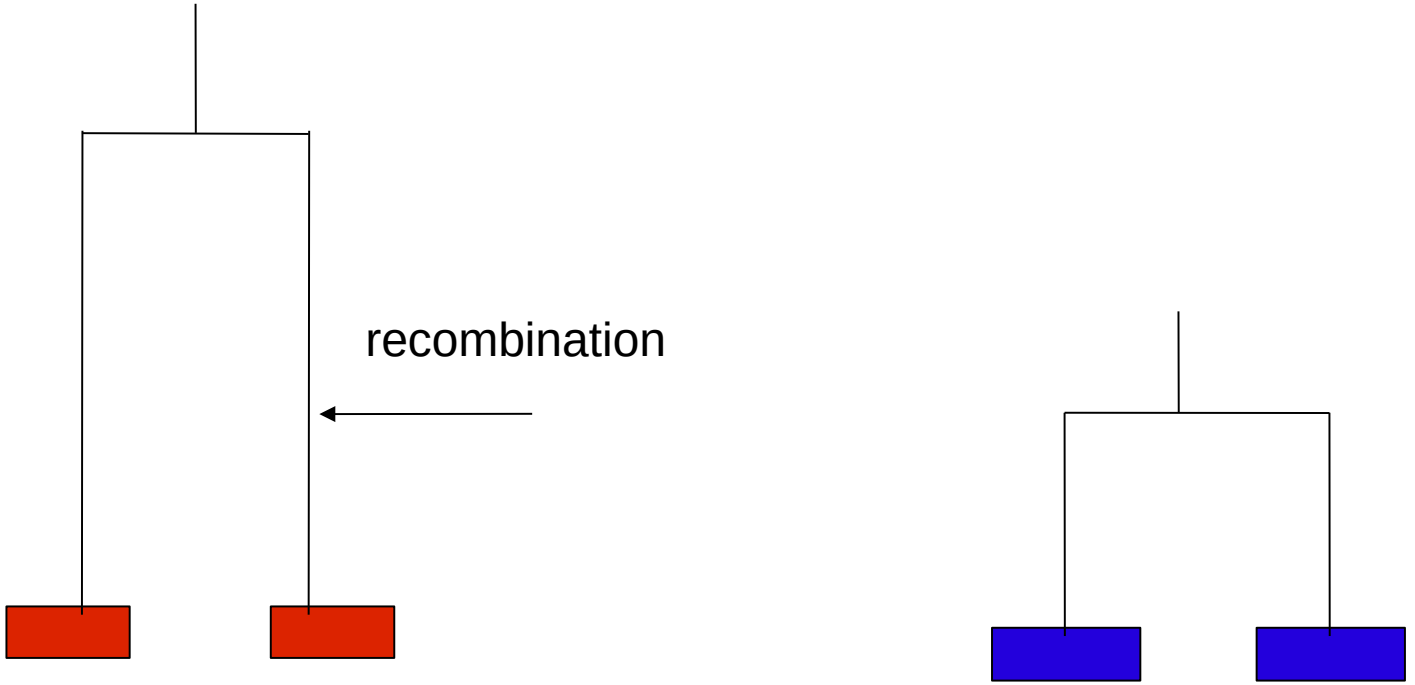
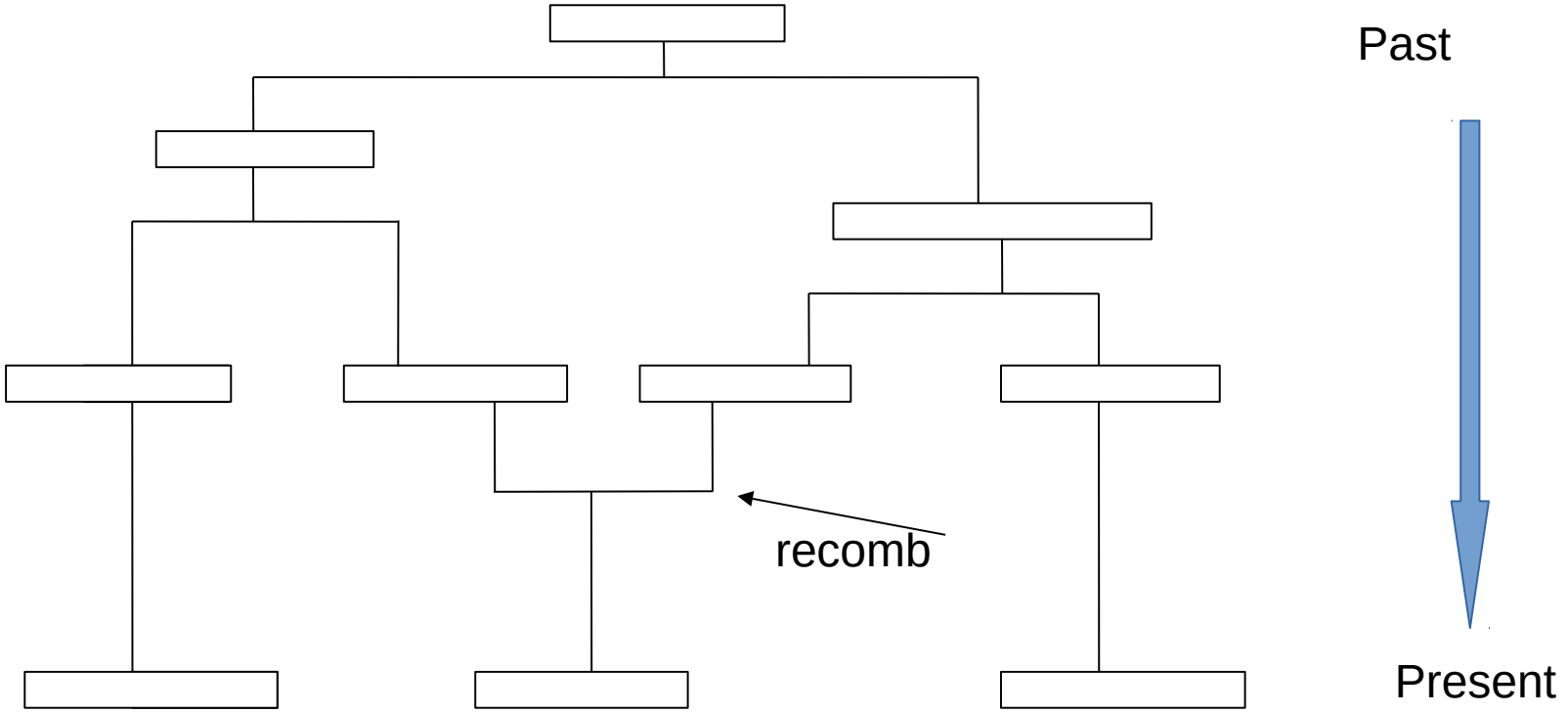
# The coalescent with recombination and the Sequentially Markovian Coalescent (SMC)

# The Coalescent with recombination. Two genes (n=2)



# The Coalescent with recombination



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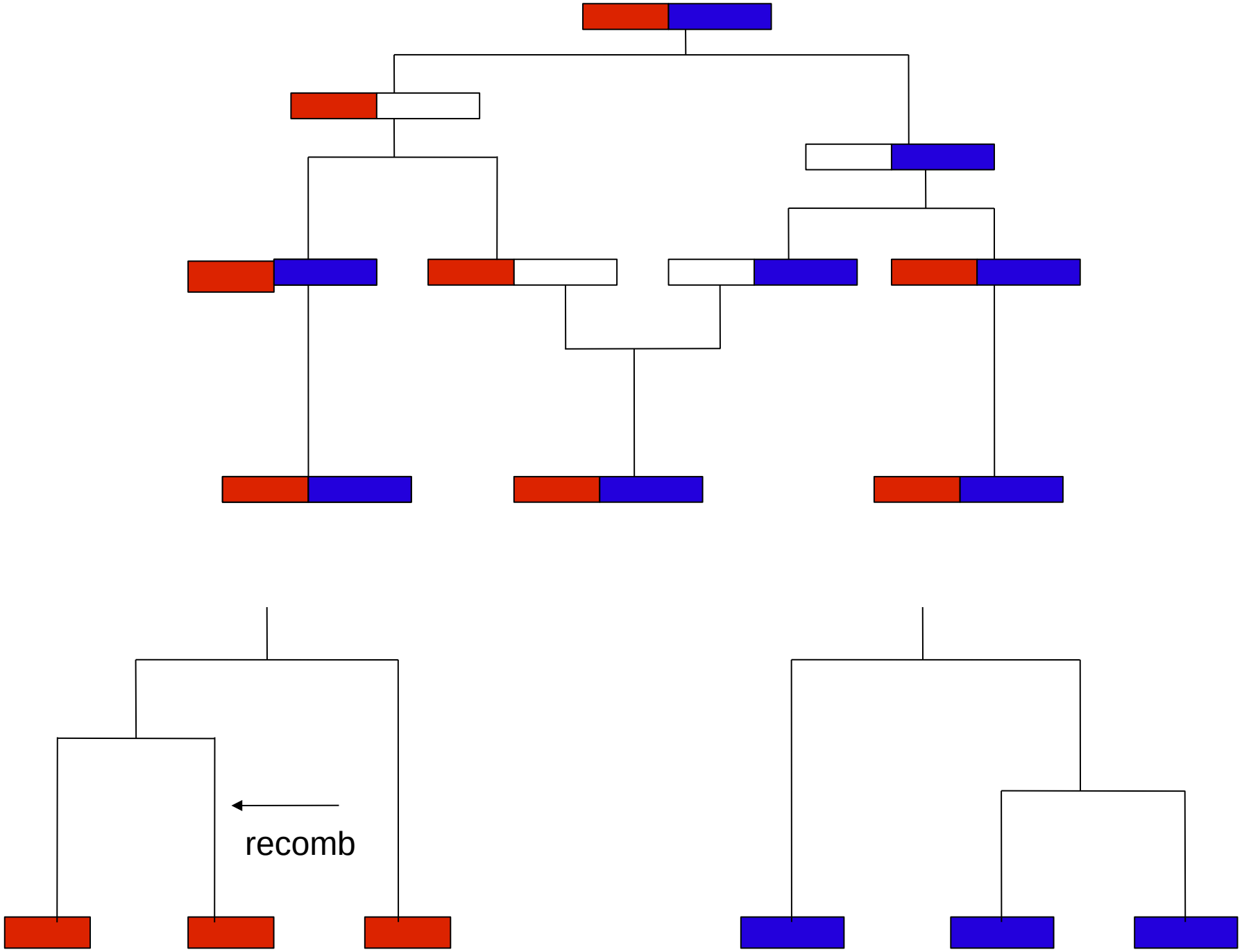

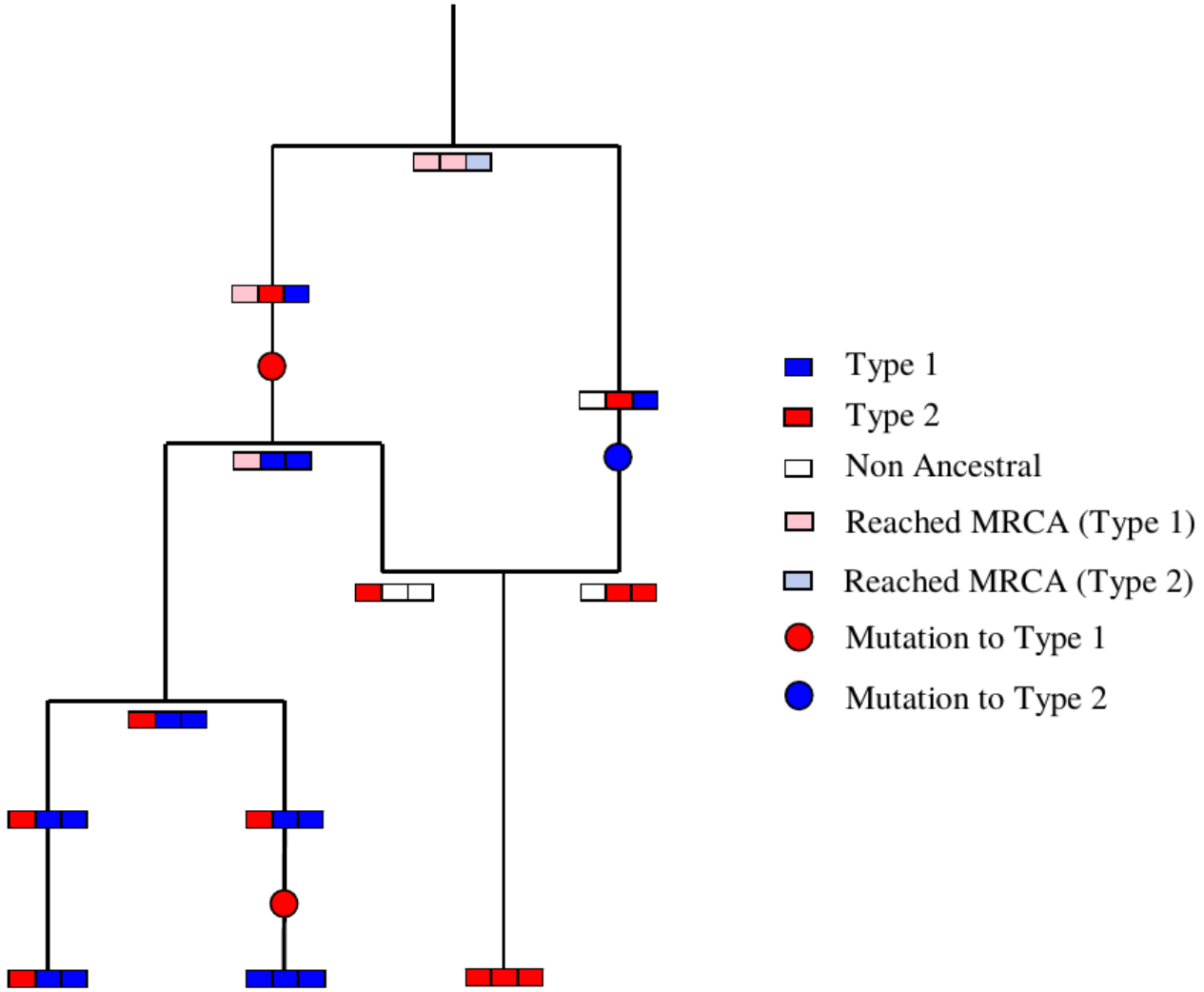


Figure 1.9: This diagram shows an example genealogy with both mutation and recombination events. Lighter colours at a site indicate that the marginal most recent common ancestor has been reached at that site.

Figure taken from Niall Cardin. *Approximating the Coalescent with Recombination.*

# Sequentially Markovian Coalescent (SMC). Nial Cardin 2007

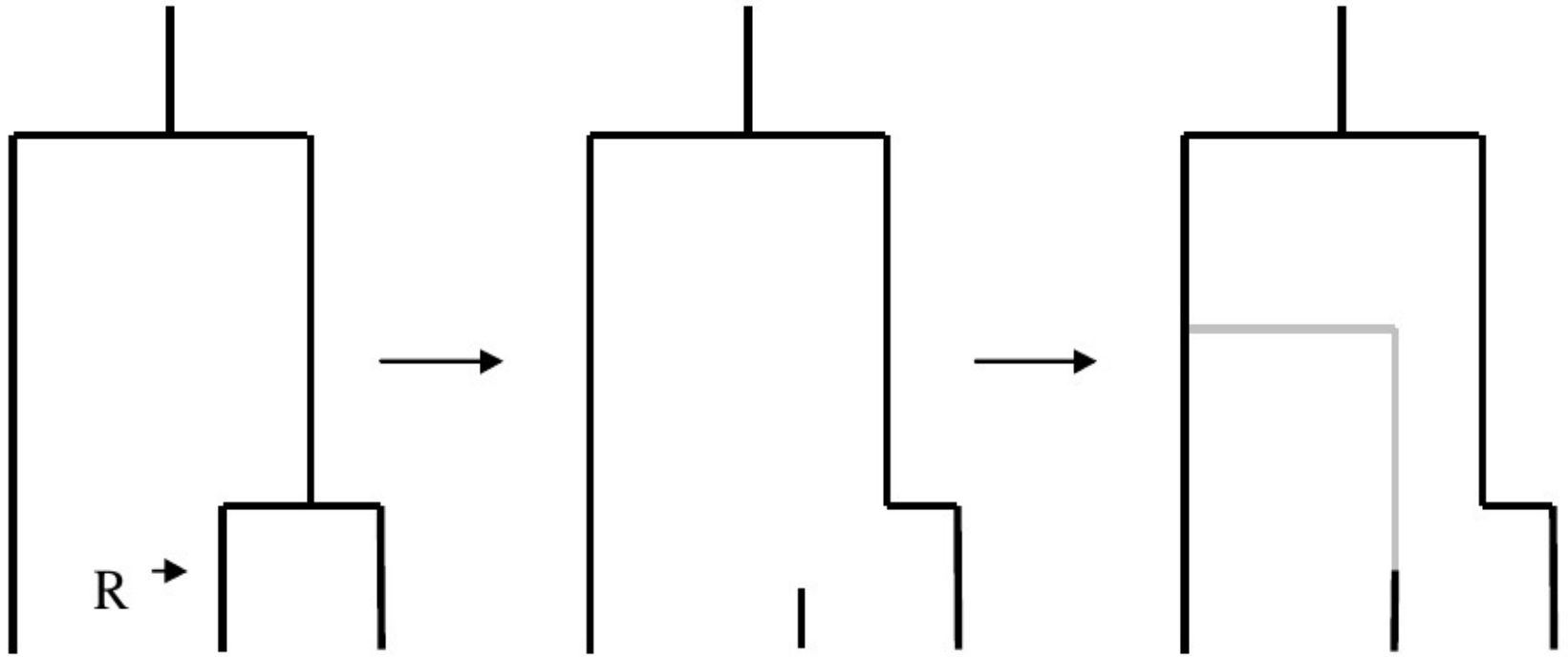


Figure 3.4: Simulating genealogies under the SMC while moving along a sequence. A recombination occurs on the first tree and the portion of the branch above the recombination is erased. This branch then coalesces onto the remaining branches.