Climate modelling with quasi-realistic models - experiences in describing climate during the Holocene and the Eemian and in designing scenarios of plausible future climate change.

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The construction and utility of quasi-realistic climate models is reviewed. Examples of reconstructing past climates are presented, in particular for the last millennium and for the last interglacial, the Eemian (120 ka bp). In addition, the approach of constructing plausible future climates, conditional upon the extent the atmosphere is used as a dump for anthropogenic substances, is demonstrated with examples.