2. Statistical problems like appropriate goodness-of-fit tests, confidence bounds and selection of important or elimination of unimportant covariates should be dealt with.

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We would like to congratulate the authors for presenting us with such a broad overview of this important topic, and in particular on their proof of the convergence of the backfitting method. The linear smoother to which they have paid the most attention is the cubic spline smoother. Now smoothing splines can be represented as signal extraction estimates in a model where the unknown regression function is generated by a stochastic process. This allows us to take a model-based approach to smoothing and estimating the components of an additive model using smoothing splines, and in this comment we wish to contrast this approach with that of the authors. A model-based approach for estimating the additive components has much to commend it because: (i) All assumptions are stated explicitly. (ii) It is a comprehensive approach which is able to deal with a variety of problems including polynomial smoothing splines. (iii) Unlike ad hoc approaches such as running means and medians, the model-based approach can deal with unequally spaced data. (iv) It suggests reasonable ways of estimating unknown parameters either by maximum likelihood or Bayesian methods. (v) It provides a framework for doing statistical inference, that is, for setting confidence intervals for the unobserved components and the unknown