QUESTIONNAIRE

- Please, note that your answers will be treated CONFIDENTIALLY.
- Only a summary of all the questionnaires responses will be made public.
- Your completed questionnaire is for the eyes of the MARGO conveners only.
- You will not be identifiable as an author of a particular questionnaire except to the person you sent it to.
- Your participation will be acknowledged, unless you object to this, but you will not be linked to any particular replies.

Answers to be addressed to Antoni Rosell-Melé
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or by post to

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Fax: +34 93 581 3331

Deadline: 10th September 2003

(please, do not understand any of the questions as a criticism to any previous work.
They represent an honest attempt to canvas your opinion on a series of issues so that
MARGO can achieve its goals more effectively)

Which type of models do you use to simulate the Last Glacial Maximum?

As a modeller, what are you going to use paleo-maps for? *(mark all that apply)*
   a) Boundary conditions
   b) Validation of models
   c) Nothing
   d) Wall decoration
   e) Teaching
   f) Other (please specify)

How do you rank the utility of paleo-maps of past surface ocean conditions? *(mark ONE that applies)*
    a) Very useful
    b) Useful
    c) Not useful
    d) Curiosity
    e) Other (please specify)

What are the most interesting ocean parameters from a modelling perspective?. *(rate from 1, for no use, to 5, for very useful):*
    a) Sea surface temperature
    b) Sea ice
    c) Zooplankton biogeography
    d) Phytoplankton biogeography
    e) Surface albedo
    f) Seasonality of SST
    g) Others (please specify)

Given limited resources, which oceanic regions should be given priority in a paleoreconstruction project on SST, if any? *(rate from 1, for very low priority, to 5, for top priority; please elaborate if necessary)*

    a) High latitudes

    b) Mid latitudes

    c) Tropics

    d) Marginal seas

    e) Other (please specify)

If equal reliability is assumed, do you prefer reconstructions representing average…
(rate from 1, for no use, to 5, for very useful)
    a) Annual conditions ?
    b) Seasonal conditions?
    c) Monthly conditions?
    d) Any of the above would do as long as they are accurate?
    e) Other (please specify)?

What is your definition of seasonal values (e.g. winter)?
- a) Winter = December –February or June-August
- b) Winter is the mean of the coldest 3 months of the year
- c) Winter is the mean of the coldest month of the year
- d) Other (please specify)

How do you define the Last Glacial Maximum?
- a) The coldest period of the last glacial
- b) The period with the maximum extension of continental ice-sheets
- c) 21,000 yrs B.P.
- d) Between 18,000 to 24,000 yrs B.P.
- e) Other (please specify)

For SST (or other variables), which type of values do you prefer represented *(rate from 1, for no use, to 5, for very useful)*
- a) Absolute values
- b) Anomalies (LGM – present?)
- c) Other (please specify)

How do you rate the following type of representations of data in maps *(rate from 1, for no use, to 5, for very useful)*?
- a) Contours drawn by hand
- b) Statistical contours (i.e. using a piece of software)
- c) Raw non-interpolated data
- d) Gridded
- e) Other (please specify)

Which is the maximum resolution (grid size in latitude vs. longitude degrees) of a paleo SST map that it is useful to you?

Which is the minimum resolution (grid size in latitude vs. longitude degrees) that it is useful to you?

If no consensus exists on SST (or other variables) for a particular oceanic location because of contradictory estimates from various proxies, would you find it more useful to have…
 (rate from 1 for no use to 5 for very useful)
   a) A blank in the map?
   b) A range of values?
   c) An average and standard deviation?
   d) Different maps for each proxy?
   e) A separate map indicating the degree of consensus between proxies?
   f) A qualitative indication (e.g. For SST indicate if colder/hotter than today)?
   g) The maximum or minimum value of SST (or other variables) in a location or region?
   h) Other (please specify)

Would you find useful reliability assessments for the represented values of SST (or other variables) in a paleo-map?
 (rate from 1, for no use, to 5, for very useful)

If you would like having a reliability assessment of a reconstruction, how would you rate the following types of assessments *(write a number from 1 for no use to 5 for very useful)*
   a) A subjective (educated guess) rather than none
   b) Semi-quantitative based on the weighing of different qualitative and subjective factors
   c) A function of the spread of values from different paleoreconstructions
   d) Standard deviation of the proxy value + number of measurements
   e) Sum of standard deviations from different proxy values + number of proxies measured
   f) Quality of age model used to assign the sample to the lgm
   g) Sedimentation rate over the lgm interval
   h) Other (please specify).

Do you give equal credit to all proxies? *(answer Yes or No)*

If you give more credit to some proxies, do you base your opinion on *(answer Yes or No)*
   a) Degree of similarity with models?
   b) How well you understand the proxy approach?
   c) The reputation of the approach?
   d) Other (please specify)?

Do you think that it is <u>sufficiently</u> understood by modellers how all paleo-SSTs are derived?
   a) Very well
   b) Well
   c) Sufficiently
   d) Insufficiently
   e) Not at all
   f) Who cares?

How well do you think that you understand the following approaches to reconstruct palaeo-SST *(rate from 1, for not-at-all- to 5 for very well)*?
   a) Foraminiferal transfer functions
   b) Diatom transfer functions
   c) Radiolarian transfer functions
   d) Dynocyst transfer functions
   e) Coccolith transfer function
   f) Mg/Ca
   g) Alkenones or UK37
   h) $\delta^{18}O$

Which of the following do you find more or less acceptable for defining modern oceanic conditions of your control run? *(Rate between 1- not acceptable to 5 – the best)*
   a) The average of the Holocene
   b) The average of the last 2000 yrs
   c) The average of the 18th – 19th centuries.
   d) The average of the last 100 yrs
   e) The modern AMIP data set (10-year average)
   f) The present day (i.e. last year)
   g) Other (please specify)

What would you like to see in the MARGO data set of surface ocean conditions for the Last Glacial Maximum that you never dared to ask from a paleoreconstruction until today?
For instance, "sea surface temperature (first 10m or 0m) for each month of the year"

Other (please specify)

THANK YOU!