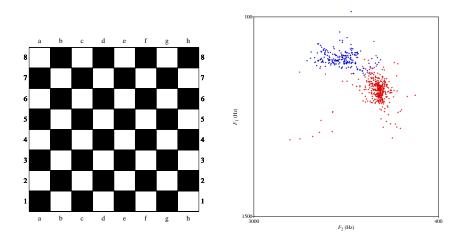
## Automatic data processing with Praat

Deadline: 16.01.2008

## 5 Exercise

- 1. Write a script that draws the vowel quadrangle found on every IPA chart into the Picture Window. Use variables to simplify the placement of lines and symbols.
- 2. Write a script that draws a chessboard into the Picture Window. The output should look something like the left figure:



3. Write a script that iterates over every aufnahme\_\*.wav in sounds.zip. For each Sound, create a Formant object using the default settings of To Formant (burg).... Load the corresponding TextGrid from TextGrids.zip and analyze the vowels on tier 3 as follows:

For every vowel, use the Scatter plot... command on the Formant object (with default parameters, except for the time range, which should correspond to the respective vowel's start and end times). If the vowel is an /a/, have the plot show red marks, and blue marks otherwise.

All scatter plots for all recordings should be collected into a single graph, which should look like the figure on the right, above.

Extra. Tweak the last script so that it automatically determines the optimal ranges for the  $F_1$  and  $F_2$  axes, depending on the data.