Misi, Gábor
Formal methods in form analysis of Transylvanian male solo dances

The paper tries to follow and build on the achievements of the Hungarian dance form analysis school based on the work of György Martin, Ernő Pesovár, Mária Szentpál and Olga Szentpál. They were who made dance form analysis a scientific discipline in Hungary by introducing Kinetography Laban as a tool.

From a computational point of view, some of their theoretical definitions contain imprecision, cannot be formalized, and therefore cannot be applied consistently in practice. (In other words, applying these definitions still require intuition from the researchers). Precise definitions should be formalized in dance analysis too, and they can certainly be – using dance notation, in a more consistent way than ever before. To give exact definitions a) is necessary to define algorithm descriptions for computer-aided dance analysis, and b) could facilitate a more productive dialogue between researchers.

The paper discusses seven areas of dance form analysis: 1. dance segmentation, 2. connections between structural units, 3. unit classification, 4. representative unit, 5. unit naming, 6. written dance representation, 7. 'mistakes' of the dancer.

The paper shows examples on these areas encountered during the process of analysis of three Transylvanian male solo dances from the Mezőség region. A few formal methods are introduced. (A formal method means a method that only uses notation as written graphical signs without meaning. These methods were used in mathematics first but other sciences such as linguistics have also adopted them.) Although formal methods in dance analysis will be dependent upon the quality of dance notation, i.e. how detailed and graphically standardized it is, there is an advantage in them: they can be supported by computer programs like DanceStruct or Labanatory, the main functionality of which is to search for patterns – based on Kinetography Laban.

PowerPoint presentation is requested.

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