The PaaLabRes collective, based in Lyon, France, has been in existence since 2011. One of its aims is to redefine artistic research as an important realm for many artists existing outside the academic world, who in their artistic productions carry out (often informally) some kind of research in the form of processes mingling social, political, pedagogical and artistic practices. One important aspect of this position – developed in practical terms at the Cefedem AuRA since 1990 – is the idea of “learning by research” in which students are given experimental tasks to realize on their own (often in collective forms), leading to productions (playing) integrating specific forms of knowledge or know how. In 2017, the PaaLabRes collective developed an Internet publication centered on the question of “Graphic Scores” mixing performances (videos or audio tracks) with textual explanations, formal reference articles, interviews, and documentation. Part of that edition was devoted to Treatise (1963-67) by Cornelius Cardew, a graphic score considered by many as a major reference. A rich material for study has been gathered: 7 Treatise performances (2 by local music school children, 1 by Cefedem AuRA students, 1 by Lausanne HEMU students with musicians and actors, 2 by contemporary music ensembles, 1 by a free jazz collective), a collage of texts on Treatise with special attention to the realization processes, 1 interview of one of the players of the Ishtar collective, and texts or oral debates by all of the performers concerning their approaches to making decisions as to how to interpret the graphic materials. Graphic scores with no predefined code are a good example of putting the performers in experimental or research situations as they have to invent a sound world, which is subject to the constraints of the visual characteristics of the graphic material.

Students (as well as professional musicians) involved in the realization of graphic scores can be considered as being involved in a research practice through playing, which concerns issues of timbre elaboration, co-construction of sounds, interpretation of scores with the added task of being a secondary composer of the piece. The process of building a meaningful rendering of written signs into sounds can give the participants access to a deep understanding of sound representation and the importance of scores as the kernels of sound concepts storage over

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time. In analyzing the collected data on Cardew’s *Treatise* interpretations, three questions will be explored:

1. What is learned exactly in the process of realizing the piece?
2. What is the real musical content, if any type of interpretation will do? What are the conditions for building meaningful learning and artistic experiences?
3. How can different musicians with divergent backgrounds build something together, avoiding the imposition of one cultural/artistic practice or tradition over another one?

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