
Review: *Theater of Fire*

Philip Butterworth

Special Effects in Early English & Scottish Theatre
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As a safety expert, I fell in love with this book before I finished the introduction. Author Philip Butterworth introduces his subject with a discussion of the difference in safety-consciousness between the Middle Ages and today. This is appropriate if readers are to appreciate the boisterous and hazardous theatrical pyrotechnic experimentation in this historical period.

The author surveyed five major renaissance and medieval data bases for information on period pyrotechnics:

- guild, civic and ecclesiastical records
- firework writers' recipes;
- eye-witness accounts;
- recipes in Books of Secrets; and
- stage directions in plays.

From these sources, Butterworth gives us a glimpse of pyrotechnics of the period through diagrams and illustrations of pyrotechnic effects, recipes, and written accounts transliterated from the original old English and old Scottish manuscripts.

Especially engaging are the descriptions of royal firework pageants. Often these began with the building of two realistic-looking castles and a monstrous pyro-spitting dragon. Then troops using real gunnery and fireworks-wielding actors staged battles which resulted in the complete demolition of the enemy castle and the dragon.

It is not surprising that these pageants got a bit exuberant. In one instance, one of the "balles of fyre" was accidentally projected "over the Castell, and into the myds of the Towne" where it was responsible for damage which "made a hole as big as a man's head".

My only criticism of the book is that the Glossary is not more complete. I would like to see almost every pyrotechnic term used in the text defined in the Glossary. The meanings of words have changed greatly over the last 400 years. In fact, I suggest reading the Glossary before the text. Readers who ignore the definitions are likely to be "hoisted on their own petards" or, at least, misled by a words like "lances", "coffins", and "stouple".

Stouple is a good case in point. Its synonyms include: cotton wick, cotton weeke, quick-match, gunmatch, and match. But the stouple is unlike the matches and wicks of today. Readers must consult the Glossary to learn how cotton wicks were made if they want to understand how the stouples worked.

It is just as important to read the Glossary's descriptions of how the ingredients were manufactured. Then it becomes clear that most of the chemicals were so impure that the contaminants must have affected the pyrotechnic reactions. The impurities also render all the weights and

measures in the old recipes unreliable. In addition, the author points out that some writers of the period withheld "significant information in order to retain control and apparent secrecy of processes which ironically prevent recipes from working". For all these reasons, *Theater of Fire* is not a "how to" book.

However, some "how to" aspects in the chapter on Flame as Light just might give ideas to Lighting Designers. I was awed by the inventive lighting devices and effects that were created with candles, lanterns, globes of liquid, and mirrors.

Special Effects Technicians also will find their roots here. However, they should not try the Medieval methods for creating shooting fire, devils on fire, devils spitting fire, lightning and lightning storms, thunderbolts, smoke, boilings, and burnings. For example, actors today probably would not be pleased if they were directed to

... take Brimstone [sulfur], Orpiment [arsenic trisulfide], and common Oyle, of these make an ointment, with the which anoint thy garment all about & thy head and handes, and after light the same & it will burne all at once without harme

And if accidents did happen, well....

... the man who played Satan, when he prepared to enter through his trapdoor underground, his costume caught fire round his buttocks so that he was badly burned. But he was so swiftly succored, stripped, and reclothed that without giving any sign [of pain] he came and played his part, then retired to his house.

I'll bet he did! Clearly, the show-must-go-on tradition was already established in the Middle Ages. And Butterworth documents the fact that pyrotechnics and special effects were an important part of that tradition. *Theater of Fire* is a masterfully researched and documented text that belongs in the libraries of all designers of special effects and lighting and every lover of pyrotechnics.

[Editor's Note: This book can be obtained directly from the Society for Theatric Research in London. The address is:

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At press time the cost was £24.00]
