

## **‘Flown in Fumo’: Alchemy, Explosion and the Furnace**

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A paper given at the *Aesthetics of Alchemy* symposium, Birkbeck, University of London, 24th June 2019.

One of the singular things about alchemy is that, though alchemical workplaces are readily visualised, there is no settled name for them. Alchemists sometimes have ‘dens’, and even, perhaps because of the wizardly associations, ‘lair’. Sometimes they are accorded the dignity of a ‘studio’, or a ‘workroom’ and, from the seventeenth century, an ‘elaboratory’ and then ‘laboratory’. Tellingly, alchemists are also sometimes sited in ‘kitchens’. This last-named seem particularly appropriate, since a furnace or kiln features in many images of alchemical workshops. Examples include Thomas Wijck’s *The Alchemist in his Studio*, Cornelius Bega’s *The Alchemist* (1663), David Ryckaert III’s *The Alchemist and his Wife*, Domenico Maggiotto’s, *The Alchemist*, Francois-Marius Granet’s *The Alchemist* and David Teniers the Younger, *The Alchemist*, and *The Bald-Headed Alchemist*. Often, as in Peter Breughel’s *The Alchemist*, the furnace is simply a grate with a chimney.

At the centre of alchemical practice is the skilled application of heat, inherited from the crafts from which alchemy derived its practice and much of its knowledge. These were pottery, metallurgy, in its familiar form of the blacksmith, in which melting, alloying and annealing through the action of heat was central, and, no less significant, and even more pervasive, the crafts of cooking. The culinary arts in particular made for a network of links between the practice of transmutation in nature and the operations of the human body, which latter were thought of primarily as the action of internal ‘concoctions’ or cookings. Tellingly, concoction was the process that produced animal spirits through a series of imaginary ‘digestions’, and thus formed the passage between the body and the soul. There was even a special kind of alchemical furnace, the Athanor, the name deriving from ‘al-tannoor’, an oven, normally used for baking bread, designed to provide a steady heat for the process known as ‘digestion’ (a sort of dissolution). The furnace, at once familiar and exotic, was central to the process whereby ordinary arts and handicrafts were transmuted into the quasi-imaginary art of transmutation that alchemy is.

As simultaneously the process and the place of heating, literally, the forge or ‘fire-place’, the furnace partakes in the strange duality of heat, that is at once an action and an imaginary substance. Indeed, the oven is perhaps a mis-en-abîme of the alchemist’s den, lair or laboratory itself, the place in which place is transformed. In alchemy, as in the writing about it, matter is meta: matter is always in close commerce with metaphor and metaphysics.

The furnace has a double operation in magico-imaginary conception. First of all, of course, it transforms, through destruction or dissolution. But it also confirms and perfects, through forging and annealing. These two operations are acted out in the most familiar story, that of the preservation of Shadrach, Meshach and Abednego, to give them their Babylonian names, in the ‘burning fiery furnace’ (Daniel 3.6). I always somehow assumed when I heard the story told in school assembly that the fourth figure who is seen walking about in the flames, sometimes identified with the protective angel Michael, was in some sense a kind of byproduct of the flames, as



The fire from them let neuer cease.  
 And so that thy furnace be surely apt therefore,  
 Which wise men call an Athenore,  
 Conseruing heat required most temperatellie,  
 By which thy matter doth kindly putrifie. (Ripley 1591, 24)

The athanor is an apt image for *The Alchemist*, a play in which the aim of the devious Face, Subtle and Doll is just to keep the fires of foolish desire alive in their bubbled clients as long as possible. The furnace is never seen on stage, any more than any of the alchemical stage properties, perhaps because the whole rolling boil of the play's frenetic business is an image of the furnace in operation, an imaginary thermodynamics and a thermodynamics of imagination.

The twin jeopardies of the furnace are that it will go out, and that it will overheat and spontaneously combust, an ever-present danger with the application of heat in a confined space. When, around 1630, he produced carbon monoxide through heating charcoal, the first substance to be distinguished from air, Jan Baptiste van Helmont decided to call the substance 'gas', because of its resemblance to the Greek chaos. In a sense, the furnace is not so much an object, as the objectification of the dissolution that does away with objects: As such it is a kind of anti-object, or objet-décomposé. The furnace is a kind of thermodynamic accelerator: it has the transformative powers of heat, but also its destructive powers.

From the very beginning in *The Alchemist*, there is the threat of a thunder that will eventually discharge itself flatulently when the plot, along with the imaginary or purely 'projected' laboratory, off-stage, and yet encompassing all of the visible action elaborated onstage, is blown up:

FACE: O, sir, we are defeated! all the *workes*  
 Are flowne *in fumo*, every glasse is burst.  
 Fornace, and all rent downe, as if a bolt  
 Of thunder had beene driuen through the house.  
*Retorts, Receiuers, Pellicanes, Bolt-heads,*  
 All strooke in shiuers! (Jonson 1937, 378)

Most words move from concrete to metaphorical. Explosion seems to be an exception, for most of the seventeenth-century usages of the word relate, not to substances or physical processes, but the explosion of ideas, beliefs, or conceptions. In fact, to 'explode' often mean to jeer or laugh off the stage.

The word that Jonson uses to embody this compound notion, a notion that compounds compounding itself and violent decomposition, is 'projection'. Projection is an alchemical term which refers to the final consummating transformation that produces gold. But the word also alludes to the work of speculation, both poetic and pecuniary. And projection also anticipates the final explosion, of expulsive laughter, that will be the vaporising outcome of all the farcical plottings and frenetic dissimulations. Explosion holds together Jonson's brilliantly prescient understanding of the close imbrication of capitalism with fantasy, magic, libido and the spectacular dreams of the playhouse, the double of the dream-theatre that is alchemy itself.

## References

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