# Prompt #1:

The role of occult forces during the renaissance was a controversial and complex one. Renaissance philosophers’ attraction for ancient wisdom and ancient sources set the tone. Before the Renaissance, the word occult was used in its dictionary sense, meaning hidden, or used in contexts to describe the “intimate secrets of nature”. How did ‘occult forces’ influence scientists-to-be, and how did the scientific establishment react? Once Renaissance Humanists like Ficino attempted to trace the origins of magic and theology, a critical problem arose: a *prisca theologia*, became indistinguishable from a *prisca magia* (Hanegraaff, 47). Although modern science was born from the ‘occult’ methods of observation, experimentation, and manipulation, the syncretic mess that resulted from the Renaissance permanently connoted ‘occult’ forces and sciences in ways that made the new scientists avoid association with them. Eventually, the work of the Academy stripped the ‘occult’ from ‘occult sciences’ and reappropriated occult forces into physical terms.

‘Occult forces’ seemed to be found wherever there was a lack of knowledge. Anything that seemed supernatural was almost exclusively attributed to occult forces or qualities. Cases of magical thinking involving occult forces can be found in many concepts of everyday mediaeval life. Angels, demons, elementals, astrology, alchemy, magic, possession, ecstatic trance, necromancy, and the general idea of an “unseen world” were all explained by a hidden network of ‘occult forces’, implying a coherent unity just behind the surface of things. To a Renaissance proto-scientist, occult forces were hidden forces or properties of objects which were latent until they were unveiled by *experimenta*. To a Renaissance theologian or magician, occult forces were sacred mysteries. But the new scientists rejected supernatural explanations and instead hunted for one they could relate to: a material or mechanical one.

Occultists studying the various manifestations of ‘occult forces’ within their various arts learned ways to demonstrate the hidden forces by manipulations that would otherwise almost never happen; they experimented. Tools were developed, laboratories built, and magic potions were replaced with chemical recipes. Naturally, the specialized skills and knowledge gained from their manipulations found kin among craft guilds and artisans. But while new scientists recognized the value of studying occult forces in a laboratory, they shunned the people and the tradition it came from, and struggled to penetrate the secrecy of their philosophy. So, seeing the possibility of finding some nugget of gold within the “dirty”, “low status” arts, the scientists condescended to learn in their “dirty”, “unprofessional” laboratories.

Of course, Isaac Newton didn’t think his alchemy was “dirty”. He in fact distinguished between his “noble” alchemical work, and “vulgar chemistry”. Newton thought his alchemy to be a “noble” art, but understood that the Establishment (the Church, the Academy, and the royal courts who supported them) imposed a taboo against it. Newton - who Lord Keynes called “the last magician” in his 1946 lecture to the Royal Society of London – thought his studies in alchemy were, “so sacred and potentially so powerful, this way of working had to be kept secret (Golinski, 153)”. Nevertheless, “his alchemical interests were transmuted into the form of public doctrine”, and this doctrine, “was highly influenced by his private investigations … but concealed the circumstances of its origin ” (151). Likewise, Newton and his contemporary Boyle both acknowledged the “general controversy” and “political inconvenience” of their occult interests, and accordingly conspired to censor their Academic publications to omit any chemical discoveries that derived from alchemical methods (155).

It seems clear that it was the secretiveness of occult sciences which the new science wanted to reform, but some scholars insist otherwise. To Principe, alchemists had to shed their “low status” qualities in order to “uplift” and “domesticate” them into a “respectable public discipline (31)”. But this argument is less historical and generally weak; the general rhetoric is saturated with value judgment and it implies that only the Academy decides what is respectable or professional. After all, it is unarguable that the occult arts provided career opportunities for proto-scientists; occultists had professionalized their crafts for centuries. It doesn’t quite add up that the occult sciences weren’t “professional” enough - they were self-sustaining autonomous disciplines that didn’t need an institution to develop or make a venue for themselves. The only thing that was *really* in the way for new scientists was the occultist’s secrecy.

By the 18th century, the new scientists had marginalized the ‘occult forces’ and occultists’ secretive philosophy to the point of insignificance, but simultaneously appropriated the methods and skills used to perform their arts. Newton’s alchemy was just one example of an occult scientist who had to partition their studies into esoteric and exoteric work. Unfortunately for the esoteric ‘occult forces’, this meant being marginalized into obscurity; ‘occult forces’ were replaced with ‘subtle particles’ and no trace of ‘hidden’ forces or occult philosophy was left in the new science. With the advantage of political power on their side, the new scientists successfully occulted ‘the occult’ with scientism.

# Prompt #2:

While proto-scientists were demystifying the occult qualities of Natural Magic, their historically-oriented peers were searching for the origins of magic. Some were interested in the ideas of magic for practical use, while others were more interested in the origin of these ideas. Intellectuals asked themselves if magic *could* be used to better understand the world, and theologians asked themselves if magic *should* be used to understand the world. How did these trains of thought influence each other to contribute to science as we know it today? Frenzied debates regarding these pursuits ended in a syncretic mess - still used by scholars today - which rounded up a diverse collection of ‘alternative beliefs’ into a catch-all term, framing “occult sciences” as a field of knowledge specifically ‘other’ than science. The new language around ‘occult philosophy’ and ‘occult sciences’ ignored the relative differences among the many disciplines and portrayed the lot as irrational alternatives to the new science.

During the Renaissance, the study of occult qualities represented the forefront of proto-scientific thought, and practitioners of ‘occult sciences’ were go-to experts for centuries. Today ‘occult sciences’ – when contrasted with Academic science - are seen as ‘alternative beliefs’. But throughout the middle ages ‘occult philosophy’ and its sciences were a mishmash of beliefs that were imbedded in the worldview of laypeople, professionals, and clergy. Copenhaver tells us the extent of this: “Those who did not use occult qualities to explain their effects … [were] never convincing enough to displace occult qualities. This was true through the middle of the seventeenth century, when alternative explanations were often cast in terms of the fashionable corpuscular and mechanical paradigms (Copenhaver, 279)”. Occult sciences were surely in vogue, but were always shrouded in secrecy.

It was the secrecy of occult sciences which, “in the sixteenth and seventeenth centuries was widely interpreted in political terms (Eamon, 333)”. This tradition of secrecy is crucial to understanding how Renaissance people saw the occult arts. The Renaissance search for a *prisca theologia* and *prisca magia* ended up converging on the same patriarchs of civilization (Hanegraaff, 47). Syncretic tendencies resulted in the narrative of an Ancient Wisdom Tradition and a supposed “occult philosophy” that contained the principles of “occult sciences”. This meant that workers in the occult arts believed they were heirs to a secret ear-whispered doctrine, which had been passed down through the ages by priesthoods, adepts and magi directly from Hermes, Zoroaster, Moses, or Adam. This new perspective was a paradigm shift for the Renaissance. Now occult qualities were sacred, “the privileged sanctuary of divine mystery in the world (Hanegraaff, 181)”. But the new scientists were off-put by so much secrecy, and took advantage of the syncretic mess to bring the occult sciences under control. The Academic scientists could now relate the secretive sciences with a mysterious and controversial politico-religious movement that connoted them in a way that allowed them to dismiss and ignore their philosophy – effectively conquering their secrecy – in order to take what they really wanted: their methods and practices. The Academic scientists procured what they found useful from the occultists while also leading a smear campaign against them. Now these numerous ‘occult’ practices and beliefs would be referred to as ‘occult sciences’, or ‘occult philosophy’. This usage is still employed today to summarize a large collection of diverse (and increasingly contradictory) beliefs, but “such usage still implies the unifying perspective inherited from the Renaissance project of *occulta philosophia*”, says Wouter Hanegraaff, Historian of Hermetic Philosophy and Related Currents at the University of Amsterdam. The language conveys an implicit or unconscious acceptance of “magic” as a unique category in itself, and by using the term ‘occult sciences’, “scholars inevitably end up endorsing an argumentative logic that, against the weight of historical evidence, is designed to exclude them from the history of science (Hanegraaff, 187-8).”

The new scientists were almost identical with ‘occult’ scientists, the biggest difference was their rejection of the Ancient Wisdom Tradition and the secret philosophy it supposedly carried. For several centuries occultists and scientists were cut from the same cloth: they used the same methods and the same tools to solve the same sorts of puzzles, only their orientations were different. From the point of view of a Renaissance occultist, it may seem like the Academy’s scientists effectively ransacked the centuries of ‘occult’ knowledge and methods, capitalized on their discoveries, and afterward left the pillaged occultists and their arts to the waste-basket of history. Thus was born ‘Esotericism’. Nevertheless, these ‘alternative beliefs’ still exist, but are contextualized by the Academy as having pre-rational thought, and little interest in empirical experimentation or genuine scientific concern.

# Other sources:

Eamon, William. "From the Secrets of Nature to Public Knowledge." Lindberg, David C., and Robert S.

Westman. *Reappraisals of the Scientific Revolution*. Cambridge: Cambridge UP, 1990. 333-65.

Hanegraaff, Wouter J. *Esotericism and the Academy: Rejected Knowledge in Western Culture*. New

York: Cambridge UP, 2012. Print.