THE ASBESTOS WORKERS' SALAMANDER

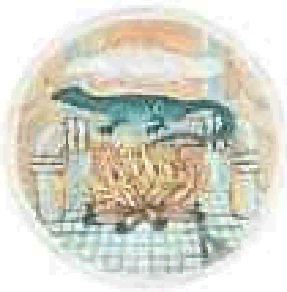
ARCHIE GREEN FUND FOR LABOR CULTURE & HISTORY

OCCASIONAL PAPER NO. 3

By Tom Lemmon
December 2003

LS 320 Senior Seminar
Senior Paper

The Historical Significance of the Salamander and Its Relationship with Asbestos and the Asbestos Workers



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April 15, 2003

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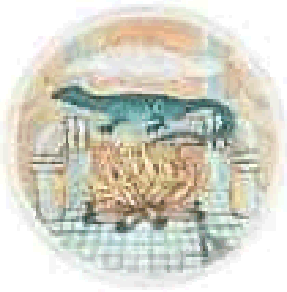


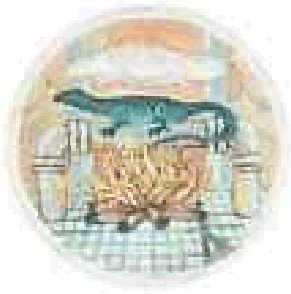
The Historical Significance of the Salamander and Its Relationship with Asbestos and the Asbestos Workers

Trademark recognition means so much in today's society. It is seen everywhere. It appears that everyone has some sort of logo or look that attempts to set them apart from the rest. If one was to take the time to look at all the logos used by the building trades within the AFL-CIO, they would notice that most logos have some sort of direct connection between that trade and their logo. In almost all cases, the connection is obvious, whether it be a tool of the trade or the actual materials that are used by their craftsmen in their daily efforts. Without question, those union workers would hold the "bug," logo or icon precious and dear to their hearts. The same goes for the International Association of Heat and Frost Insulators & Asbestos Workers and their beloved Salamander.

Typical rank and file Insulators / Asbestos Workers have, over time, lost touch with their symbolic use of a salamander perched on top of a pipe with a raging fire below and no longer have a clear understanding of the rich history that comes along with it. Unfortunately, the reason why it was chosen has faded with time. Moreover, the meaning, however rich in history, is somehow lost on the membership.

I believe that a greater understanding is needed to remind the tradesmen of their longtime association with the salamander and its association with asbestos. My hope is that I might possibly provide an increased sense of pride and ownership among the members, especially once they know that the roots of their history are very deep.

For this reason I have conducted an in-depth and thorough search for the original meaning that prompted the Knights of Labor's Salamander Association, as well as the AFL-CIO's International Association of Heat and Frost Insulators & Asbestos Workers, to continue in the historical of use of the salamander, known for its alleged ability to live in fire, as an icon. Interestingly, the tumultuous path the salamander has taken is almost as long as recorded history itself.



The Historical Significance of the Salamander and Its Relationship with Asbestos and the Asbestos Workers

After seeing a salamander perched upon a pipe over a raging fire as part of Asbestos Workers logo, most people ask "Why are you barbequing that lizard?" What does that have to do with insulation and / or asbestos work? I have been asked this question for years and have asked it myself just to hear the myriad of answers that the membership comes up with. Typically, the answers range from the "I haven't got a clue" to long and protracted explanations of the salamander's alleged miraculous ability to withstand both heat and frost.

In 1985, I read a book on the asbestos industry called *Outrageous Misconduct; The Asbestos Industry on Trial* by Paul Brodeur.[1] It discussed how Asbestos Workers were dying at alarming rates because of the exposure to asbestos, and the copious lawsuits that followed. Also mentioned was a short history of asbestos which contained a reference to Marco Polo's travels and his encounter with the Tartars, who possessed asbestos cloth that was cleansed with fire. Intrigued, Marco Polo inquired about the material and was told that the material came from Salamanders' Wool. At last, I found a connection between asbestos and the Asbestos Workers' long and celebrated use of the salamander in their union logo.

Armed with this newly found knowledge, I began sharing the information with my union brothers and sisters within the trade. Oddly enough, the new revelations of the historic use of the salamander were received in much the same way as Nicolaus Copernicus' 1543 work on the earth revolving around the sun: my brothers and sisters were calling me a heretic. Because my historic interpretation of the logo had never been heard of and its folklore had been simply forgotten or reduced to a one line statement that didn't share any of the facts associated with it in the minds of the Asbestos Workers, it simply could not be true. That, combined with the fact that I was just an apprentice at the time, did not warrant much credibility either. As time passed, I became a bit less zealous in my sharing of the history of the salamander. Then came the Internet and the ability to research volumes of data with the stroke of a key or movement of a mouse. Alas, I was able to show multiple documentations of what I had long perceived to be true based on information I had received nearly twenty years prior.

I believe that because of my intense search and compilation of documentation, I will be able to provide new insight to be shared with the members of the Asbestos Workers' International union about the long and historical use of the salamander in their logo. My overall intention in this paper is to create a timeline that traces the use of asbestos by man, the mythical belief of salamanders, and the myriad of instances of use and belief associated with them, and the eventual historical marriage of asbestos and the salamander culminating with the salamander as an icon for the Asbestos Workers.

ASBESTOS

Background

To do justice, I must first describe what exactly is asbestos. "Asbestos, which comes from a Greek word meaning inextinguishable or unquenchable, is a broad term embracing a number of fibrous silicate minerals that are found in practically every country in the world."[2] The first practical use dates back before any written records to the Stone Age, when it was used in pottery.[3] The ancient Greeks used asbestos in their cloth napkins and the Romans were the first to use it in their building materials.[4]

Until the late 1870's, "asbestos had yet to be utilized in the construction industry. It was considered more of a novelty, as it is a naturally occurring mineral. Because of the Industrial Revolution and the need for insulation, asbestos began to be commercially mined. It soon achieved enormous industrial importance because of its unique and astonishing physical properties".[5] The Environmental Protection Agency ("EPA") describes asbestos on its web-site as "six naturally occurring fibrous minerals found in certain types of rock formations. It is a mineral compound of silicon, oxygen, hydrogen, and various metal cations." Of the six types, the minerals chrysotile, amosite, and crocidolite have been most commonly used in building products.[6]

When mined and processed, asbestos is typically separated into very thin fibers. When these fibers are present in the air, they are normally invisible to the naked eye. Asbestos fibers are commonly mixed during processing with a material which binds them together so that they can be used in many different products. Because these fibers are so small and light, they may remain in the air for many hours. It has been said that if a fiber is dropped from eye level, it could take as many as forty-eight hours before it would

reach the floor. The ease in which asbestos containing material ("ACM") is spread in a building and easily inhaled is the reason that asbestos gets its bad reputation and becomes a major health problem for those exposed to it.[7]

Health Effects

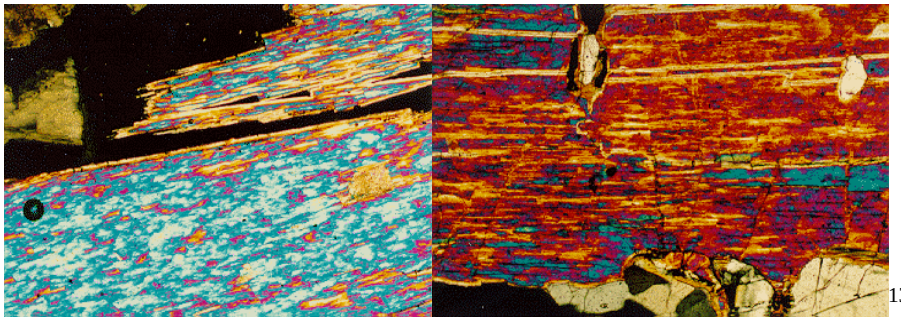
"Asbestos fibers can cause serious health problems. If inhaled, these tiny fibers can impair normal lung functions, and increase the risk of developing lung cancer, mesothelioma, or asbestosis. It could take anywhere from 20 to 30 years after the first exposure for symptoms to occur. Severe health problems from exposure have been experienced by workers who held jobs in industries such as shipbuilding, mining, milling, and fabricating."[8]

"The adverse biological effects of asbestos were observed as early as the first century by the Greek geographer Strabo and by the Roman naturalist Pliny the Elder, both of whom mentioned in passing a sickness in the lungs of slaves whose occupation was to weave asbestos into cloth. Strabo and Pliny were calling attention for the first time in history to a disease that would one day be known as asbestosis - a form of pneumoconiosis (the general term for all dust diseases of the lung) caused by the inhalation of the fine fibers and particles of asbestos."[9] The effects of asbestos would not surface again until just before the turn of the century, when an Inspector Auribault with the Department of Labor in Caen noticed very high mortality rate among workers at an asbestos weaving mill at Cond'e-sur-Noireau, France. Unfortunately, no one realized the importance his findings.[10]

Physical and Optical Properties

The physical and optical properties of asbestos are described in a paper written by C. J. Rawalt: "Asbestos has a high thermal stability, excellent tensile strength (stronger than steel), resistance to chemical attack, good thermal and electrical resistance and ability to be subdivided into fine fibers. Perfect lengthwise basal cleavage is a characteristic of asbestos. Hardness can range from 3.5 to 5, colors: green, gray, bluish gray, brown, black, or white, and are usually found in metamorphic rocks. Between cross-polarized light it 'flashes' meaning it is anisotropic mineral."[11]

Paul Brodeur says "Asbestos appears to be highly combustible, yet it can withstand the fiercest heat. It seems as perishable as grass, but by virtue of being almost immune to the forces of corrosion and decay under almost every condition of temperature and moisture (and of being resistant as well to the action of most acids, alkalis, and other chemicals) it is just about indestructible. It looks extremely fragile, yet its fibers have a tensile strength equal to that of piano wire. Apparently as light and feathery as thistle or eiderdown, it is actually as heavy and dense as the rock from which it is extracted. In one sense, then, it is a fiber of stone. In another sense, however, it is a mineralogical vegetable whose fibers are so soft and flexible that they can be carded, spun, and woven as easily as fibers of cotton or flax."[12]

 [13]

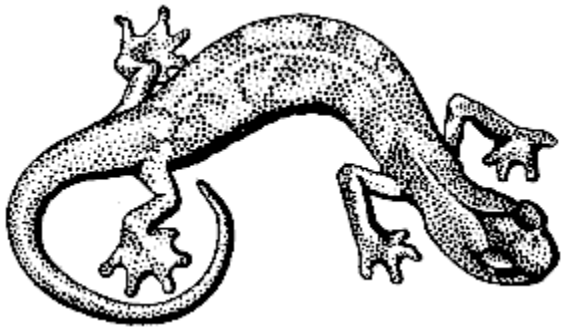
These photographs are of asbestos, viewed under an electron microscope.

Historical Uses

There are several references that illustrate that once people began to realize that asbestos was non-combustible, they began to use it in several ways, some of which were practical and others which made it look as if they had special powers. Strabo and Plutarch noted that the perpetual wicks which were used at the sacred lamps of the vestal virgins were made of woven asbestos. Some believed that they would burn for a thousand years.[14] Pliney described asbestos as being used in "funeral dress of kings" and noted that it had been used for centuries as part of cremation ceremonies, even though asbestos cloth or "cere" was not only rare but costly. The Egyptians took advantage of this through trade with the Athenians, and created quite an industry in the manufacture of the cere cloths. Archeologists have found many mummies wrapped in garments woven of asbestos dating back many thousands of years ago.[15]

"Toward the close of the reign of Kao Tsun, (386-532 A.D.), the king of Su-le (Kashgar) sent an emissary to present a garment *(kasaya)* of Cakyamuni Buddha, over twenty feet in length. On examination, Kao Tsun satisfied himself that it was indeed a Buddha's robe. To prove authenticity, the Emperor had the cloth put to a test and exposed to a violent fire for a full day, but it was not consumed by the flames. All spectators were startled and spell-bound."[16] During the Dark Ages, Emperor Charlemagne of France convinced warrior guests from a rival kingdom that he (Charlemagne) possessed magical powers by putting an asbestos tablecloth in the fire and then withdrawing it undamaged from the flames.[17] Marco Polo indicated that the Tartars had sent a handkerchief of the Lord to the Bishop of Rome made woven of salamander

wool.[18] Noted American inventor and scientist Benjamin Franklin was known to carry a coin purse made of asbestos so that his money would not burn a hole in his pocket.[19]



THE SALAMANDER

The salamander (the name possibly coming from the Greek *salambe* meaning 'fireplace') was often visualized as a small dragon or lizard. But what set the salamander apart from other lizards or serpents was the fact that it was a fire element. According to some, it was thought that the reason the salamander was able to withstand and extinguish fire was that it was incredibly cold, and it would put out fire on contact. The salamander was also considered to be very poisonous, so much so, that a person would die from eating the fruit from a tree around which a salamander had entwined itself. [20]

The foundation of the salamander's fire resistant powers may be based on the fact that the real salamander secretes a milky juice from the pores of its body when it is irritated. This could possibly defend the amphibian for a few moments if put in a fire. Salamanders hibernate and often hide in hollow trees or wood piles in the winter, where they coils themselves up and remain in a torpid state until the spring. For this reason, they would often be found hiding within the firewood, and when the wood was added to the fire the hidden salamander would wake up with only enough time to put forth all of

its faculties for its defense.[21] This is more than likely the reason why the salamander got the reputation of being impervious to fire.

The salamander also represents those who pass through the fires of passion and of this world without stain. "Therefore, it stands for chastity, loyalty, impartiality, virginity, courage, Jesus, Mary, and the faithful."[22] The salamander is also used to symbolize the flames which it passes through and so is a symbol of fire, temptation, and burning desire.[23]

While it may be using creative license to hypothesize that there may be a connection between the early references to salamanders and the more recent, the correlation becomes much stronger as the years pass. The first reference that I was able to find that referenced the salamander's ability to withstand fire was in the *Bible*, and according to the *Jewish Encyclopedia*, is "And the angel of the Lord appeared to him in a flame of fire out of the mist of a bush and he looked, and behold, the bush burned with fire but was not consumed." (Ex. 3:2)[24]

Another portion of the Old Testament gives asbestos a possible first use in fire protection. The biblical story has King Nebuchadnezzar punishing three Hebrew children, Meshach, Shadrach and Abednego, by throwing them into the fiery furnace. (Daniel 3:20) It has been hypothesized that they were wearing clothes made from asbestos fibers, and therefore were protected from the flames.[25] William of Normandy (1027-1087 A.D.) called the salamander the symbol of the three Hebrew children who survived the fiery furnace. It was also believed was that the salamander could represent the fourth man seen in the furnace who promised, "When you pass through the waters, I will be with you. When you walk through the fire, you shall not be burned, nor shall the

flame scorch you." (Isaiah 43:2) Cloquet considers Christ the salamander king of fire because he passed through the fires of hell after his crucifixion without harm.[26]

In Egyptian hieroglyphics, the salamander is "a human form pinched to death with the cold."[27] In Book X of his *Natural History*, Pliny said, speaking about salamanders, "This animal is so intensely cold as to extinguish fire by its contact, in the same way that ice does. It spits out a milky matter from its mouth, and whatever part of the human body is touched with this all the hairs fall off, and the part assumes the appearance of leprosy."[28] Aristotle is quoted saying in *The History of Animals,* written in 350 B.C., "Now the salamander is a clear case in point, to show us that animals do actually exist that fire cannot destroy; for this creature, so the story goes, not only walks through the fire but puts it out in doing so."[29] St. Isidore of Seville, born at Cartagena, Spain, about 560 A.D.[30] said "The Salamander is so called because it is strong against fire; and amid all poisons its power is the greatest. For other poisonous animals strike individuals; this slays very many at the same time; for if it crawls up a tree, it infects all the fruit with poison and slays those who eat it. It fights against fires, and alone among living things, extinguishes them. For it lives in the midst of flames without pain and without being consumed, and not only is it not burned, but it puts the fire out."[31]

 [32]

This drawing, although uncredited, (I would like to believe that it is a drawing by Benvenuto Cellini, an Italian artist of the sixteenth century) looks very much like it could be a template for what was to become the Asbestos Workers' logo. The following is from *the Life of Benvenuto Cellini*, written by himself: "When I was about five years of age, my father, happening to be in a little room in which they had been washing, and where there was a good fire of oak burning, looked into the flames and saw a little animal resembling a lizard, which could live in the hottest part of that element. Instantly perceiving what it was, he called for my sister and me, and after he had shown us the creature, he gave me a box on the ear. I fell a-crying, while he, soothing me with caresses, spoke these words: 'My dear child, I do not give you that blow for any fault you have committed, but that you may recollect that the little creature you see in the fire is a salamander; such a one as never was beheld before to my knowledge.' So saying he embraced me, and gave me some money."[33]

ASBESTOS AND SALAMANDERS

It can be clearly seen that asbestos has been around and utilized for a very long time, but what about its connection with the salamander? The salamander, to most of us,

is nothing more than just an amphibious creature; nothing really remarkable, maybe just a pet in a terrarium. It has no special characteristics with the exception of its ability to regenerate lost limbs. Only a few really understand the legend of the salamander as it relates to asbestos. However, somewhere along the line, people began to believe that the salamander was a "symbol of enduring faith, or courage, that cannot be destroyed,"[34] including a strange ability to live in or put out fire.

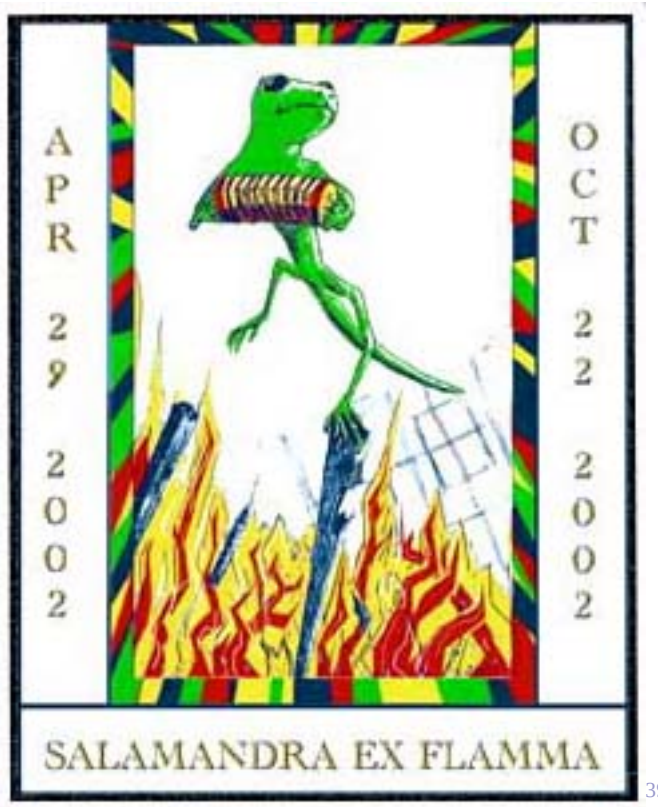
The alleged powers of the salamander and that of asbestos were not limited to Europe. The Chinese, as well as the Persians, believed in the powers of the salamander. Cou Mi (1230-1320 A.D.), in his *Ci ya t'an tsa c'ao*, mentions asbestine stuffs twice. In one passage he relates that in his house there was a piece of fire-proof cloth (hwo kwan pu) over a foot long, which his maternal grandfather had once obtained in Ts'uan cou (in Fu-kien Province). This locality renders it almost certain that this specimen belonged to those imported by the Arabs into China during the Middle Ages. Lin Wai Tai speaks of visitors to his house being entertained by him placing asbestos cloth on the hot stove. He also tries to dispel the common belief that asbestos comes not from the hair of the fire-rodent (salamander), but from the fibers of the mineral-like coal in northern China, that is burnt and woven into cloth.[35]

In the middle of the twelfth century, a forged letter supposedly sent by Prester John, the king of kings, to the Emperor of Byzantium, made its way all over Europe. "This epistle, which is a catalog of wonders, speaks of gigantic ants that dig gold, and of a River of Stones, and of a Sea of Sand with living fish, and of a towering mirror that reflects whatever happens in the kingdom, and of a scepter carved of a single emerald, and of pebbles that make a man invisible or that light up the night."[36] One of its

paragraphs states: “Our realm yields the worm known as the salamander. Salamanders live in fire and make cocoons, which our court ladies spin and use to weave cloth and garments. To wash and clean these fabrics, they throw them into flames.”[37]

The Crowned Salamander of Francis I.

François I of France adopted as his badge “a lizard in the midst of flames,” with the legend “*Nutrisco et extinguo*” (“I nourish and extinguish”). The Italian motto from which this legend was borrowed was, “*Nudrisco il buono e spengo il reo*” (“I nourish the good and extinguish the bad”). Fire purifies good metal, but consumes rubbish.[38]



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From the great Venetian traveler Marco Polo in approximately 1250 A.D., the following is perhaps one of the very best descriptions of why there is a connection between asbestos and salamanders. This same chapter ran in the A*sbestos Worker*

Journal in August of 1926, however it had not been updated to modern English which made for a very difficult read. For that reason I chose this rewrite.

> CHAPTER XXXX
> *Of the city of Chinchitalas*
> Next to the district of Kamul follows that of Chinchitalas, which in its northern part borders on the desert, and is in length sixteen days' journey. It is subject to the grand khan, and contains cities and several strong places. Its inhabitants consist of three religious sects. A few of them confess Christ, according to the Nestorian doctrine; others are followers of Mahomet; and a third class worship idols. There is in this district a mountain where the mines produce steel, and also zinc or antimony. A substance is likewise found of the nature of the salamander, for when woven into cloth, and thrown into the fire, it remains incombustible. The following mode of preparing it I learned from one of my travelling companions, named Curficar, a very intelligent Turkoman, who had the direction of the mining operations of the province for three years. The fossil substance procured from the mountain consists of fibres not unlike those of wool. This, after being exposed to the sun to dry, is pounded in a brass mortar, and is then washed until all the earthy particles are separated. The fibres thus cleansed and detached from each other, they then spin into thread and weave into cloth. In order to render the texture white, they put it into the fire, and suffer it to remain there about an hour, when they draw it out uninjured by the flame, and become white as snow. By the same process they afterwards cleanse it, when it happens to contract spots, no other abstergent lotion than an igneous one being ever applied to it. Of the salamander under the form of a serpent, supposed to exist in fire, I could never discover any traces in the eastern regions. It is said that they preserve at Rome a napkin woven from this material, in which was wrapped the sudarium of our Lord, sent as a gift from one of the Tartar princes to the Roman pontiff.[40]

And here is a quote from an anonymous Arabic compilation with a lovely title: Cloaks of Fine Fabric in Subtle Ruses, Raqa'iq al-hilal fi Daqaiq al-hiyal. It was written around 1500 A.D., and one passage is headed "Fireproofed garments":

> The false prophets included Abu-Ja'wana in al-Ta'if. He claimed to be a prophet and began to play with fire and walk on it or threw his tunic on it and it would put out the flames. The trick he used was the following: he took osier branches, white tragacanth gum, white mallow and asbestos. He ground all the ingredients, mixed them with white of egg and spread the mixture over the skin of his hands and feet. When he played with fire, it did not hurt him.

> He had a tunic coated with the concoction. He dropped it on the fire, which had no effect on it and would often go out. He also had a sash woven from the feathers of a phoenix. He threw it into the fire, but it would not burn . . .[41]

William Shakespeare uses a salamander reference in Henry IV., iv. 3. "I have maintained that salamander of yours with fire any time this two-and-thirty years." Leonardo da Vinci said that the Salamander fed on fire and in this way renewed its skin. Da Vinci inspired one of the great castles, the Chambord castle, built around 1537 A.D. It is decorated with François I's initials and a salamander motif. This enigmatic emblem appears over eight hundred times throughout the castle.[42]

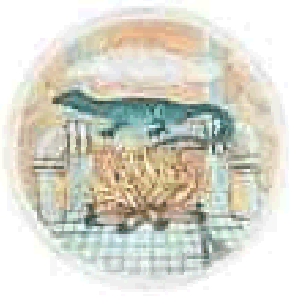
The following abstracts of articles were found in the *New York Times* from the late nineteenth century, and illustrate the fascination with folklore and with the salamander. This was the time when the pipe coverers in New York were looking for a name for their organization. The articles illustrate that the use of a salamander as a logo for asbestos workers was not unreasonable.

> UGLY IF NOT VENOMOUS TWO GENUINE FIREPROOF SALAMANDERS. THE FAR-FAMED BEAST, A MYTH ALMOST IN THE WORLD OF SCIENCE, BROUGHT TO NEW-YORK New York, N.Y. May 15, 1887 The salamander has turned up at last. In this year 1887, the nineteenth century after Christ, the far-famed beast that made itself so generally disliked in the Jurassic period that it has constantly been remembered in history, both sacred and profane, and in myth, tradition, and fable, through all the centuries since men used signs for writing has at last appeared in New York City. There is no doubt to his authenticity. The old original fireproof salamander, two of him in fact can now be seen by anybody, admission is free…

> MEDIAEVAL STORIES THE EXEMPLA OR ILLUSTRATIVE STORIES FROM THE SERMONES VULGARES OF JACQUES DE VITRY. Edited, with Introduction and Notes, by THOMAS FREDERICK CRANE, Professor in Cornell University. London: Published for the Folk Lore society by DAVID NUTT, 1890 New York, N.Y. May 3, 1891 Parables, fables, and short well-known tales probably never took so

> prominent a place in Europe as they did in the Middle Ages. Christianity was narrow, suspicious of the heathenism that was latent in all lands and jealous of the prestige won by Mohammedanism, not to speak of Judaism and its ancient claims to superiority in learning.
>
> FOLK-LORE OF THE ORIENT PERSIAN, ARABIAN, AND JEWISH MYTHOLOGY. THE FAIRY SUPERSTITION AND ITS PROBABLE ORIGIN HOW THE FAIRY COURT WAS ORGANIZED TRADITIONS FROM THE PROPHET AND ARABIAN CUSTOMS THE WONDERFUL ASS, AND OTHER ANECDOTES. New York Times New York, N.Y. Apr 21, 1878 In the popular superstition of almost all nations the belief in fairies has occupied an important place. These beings are generally represented as human in appearance, though gifted with supernatural powers.

Clearly, it is not unreasonable to believe that the first Insulators in New York read these *New York Times* articles and possibly aided them in choosing a meaningful icon such as the salamander.



These are the Asbestos Workers union's logos. The one on the right can be found on early letterhead dating back to when they were called National Association of Heat, Frost and General Insulators and Asbestos Workers of America. The logo itself has not changed much and is still currently used. The one on the left is a more modern version of the same idea.

Below is a page from the Asbestos Workers web-site, insulators.org. I complement them for addressing the need to know who we are and how we got to be who we are. Also, I would say that they almost got it right as far as the salamander is

concerned (with the exception that the salamander is not reptile). While I would never expect as much information on the website as I have provided, I believe that there is much more interest in the origin of our logo's use of the salamander, something that illustrates the salamander's historic role as a good luck charm as well as its long historical ties to asbestos.

Asbestos Workers International Union History

The International Association of Heat and Frost Insulators and Asbestos Workers Union dates back to the late 1800's and the emergence of steam power. The expanded use of steam power during this era had a profound effect on the industrial sector, leading to better heated, more efficient factories and plants, improved working conditions, and the creation of thousands of new manufacturing jobs.

The widespread use of steam power also created an entirely new industry--the insulation industry. Skilled insulation mechanics were needed to insulate steam boilers in an effort to conserve the precious energy being piped to residential and industrial facilities. The insulation mechanics who provided this craftsmanship worked almost totally without organized representation. By the end of the nineteenth century, a few localized associations attempted to look after the interests of their members in specific cities.

The first attempt to form a national bond between insulator's associations came in 1900, when the Salamander Association of New York **(which took its name from the reptile that according to legend had a skin that was impervious to fire)** sent out an appeal to related crafts in other cities to form a "National Organization of Pipe and Boiler Coverers." The initial appeal did spark interest, and two years later a much more decisive action was taken by the officers and members of the Pipe Coverer's Union, of St. Louis, Missouri.

The St. Louis group sent out an announcement that it had affiliated with the National Building Trades Council of America, and invited other pipe coverer unions and related trades to join with them in the pursuit of better working conditions, pay that was commensurate with their skills, and the strength that comes from unity. The first appeal of unity was sent to targeted cities where other asbestos workers already were enjoying the benefits of union affiliation

such as New York, Chicago, Cleveland, and Detroit. In all, seven local unions from around the nation responded favorably, and the hard work of laying the foundation for an international union was begun.

With the St. Louis union leading the way, the interested locals met for their first convention on July 7, 1903 in the city of St. Louis. The results of that inaugural convention were impressive - a constitution was drafted and approved; by-laws were adopted; the first president was elected, Thomas Kennedy from Chicago; and a formal name was adopted, the National Association of Heat, Frost and General Insulators and Asbestos Workers of America. September 22nd of that year, the American Federation of Labor issued an official charter designating the Asbestos Workers as a national union.

The year 1910 marked a new plateau for the Union. Several Canadian local unions added their strength to their American brothers. In light of these advances, the Asbestos Workers applied to the AF of L for a new charter, this time as an international union under the name the organization bears today: The International Association of Heat and Frost Insulators and Asbestos Workers.

The goals of the new International Union were spelled out in the charter: "The object of the International Association of Heat and Frost Insulators and Asbestos Workers shall be to assist its membership in securing employment, to defend their rights, and advance their interests as workingmen; and by education and cooperation raise them to that position in society to which they are justly entitled." Since that time, leaders of the International Union took this objective to grow this small group of local unions to over 120 local unions and a membership in excess of 20,000.

After World War II, the International Union's growth and prosperity was tempered by frightening new evidence that confirmed long-held suspicions by the International Union's leadership: Workers who were exposed to asbestos died in disproportionate numbers from cancer. The suspicion hung on, but medical records of deceased members often were inaccurate or unavailable, and the asbestos industry itself coldly rejected the union's charges and did not cooperate in efforts to resolve the tragic problems created by exposure to asbestos fibers.

The Asbestos Workers, through their Union, fought on, alone. They continued the battle for full disclosure of the truth, and when it was finally successful, the facts proved to be even worse than had been suspected. Medical evidence which was largely financed by the workers themselves, through the International Union, now conclusively proves that exposure to asbestos fibers produces an extraordinarily high risk of contracting cancer.

> Another sad aspect of asbestos exposure is that related diseases often do not show up for twenty or thirty years.
>
> Since this evidence was proven, the Union has fought for passage of new safety and health laws to help protect its members as well as the public. The Environmental Protection Agency has banned the use of asbestos in the insulation industry in the United States. Asbestos has also been banned from use in many other products as well. The International Union continues to provide its members with education and training with the latest state of the art work practices in the handling of any and all materials used in the industry.
>
> But through its long and proud history, the Asbestos Workers International Union has never shied away from adversity or allowed negative factors to impede the achievement of those admirable goals set out in the International charter of 1910. Asbestos Workers members are justifiably proud of the important part that their Union has played in the birth and growth of the modern American and Canadian labor movement. Through the determination and commitment of their leaders from Thomas Kennedy through current President James A. Grogan, the Asbestos Workers International Union continues to strive for employment opportunities, equality in the work place, continuing education, and the safety and well being of the membership.[43]

THE SEARCH

I searched fervently for the Knights of Labor's Salamander Association's logo to no avail. I can only assume the person that made the association between salamanders and asbestos was a true believer in symbolism as well as the union movement and clearly understood how the use of the salamander would be interpreted in a hundred years. My research took me in many different directions, including a trip to the Library of Congress, in hope of finding something that connected Terence Vincent Powderly's Knights of Labor with the Salamander Association. I found my search to be most interesting, although due to time constraints, it was not as fruitful as I had hoped. Eventually, with the help of Dr. Robert Reynolds of the George Meany Center for Labor Studies, I located a reference to the Knights of Labor's use of symbolism which gives credence to my argument that the use of the salamander is much more than a casual choice for a mascot.

This would be consistent with my hypothesis for the use of the salamander. Quoting from *Beyond Labor's Veil*, "anthropologists, folklorists, and historians have long believed that language is symbolic and that meanings attached to words often transcend the literal."[44] Also mentioned was "objects that venerated the organization promoted pride and solidarity." Certainly, the salamander fulfils these criteria.

In another effort that did not bear fruit, I contacted my local library in San Diego, California that has a "pay for service" research partner called the Terra del Sol Research Center. I tried to use their professional staff to answer one question; "When was the salamander's first use as a logo for Asbestos Workers?" They responded back to me without results. The information I had requested was not available in any of the books or databases available to them.

Throughout my paper I have cited a myriad of historical examples about how the salamander does indeed represent much more than an amphibian that, "**according to legend, had a skin that was impervious to fire**." It could be said that the early asbestos workers in New York who went by the name Salamander Association chose the salamander as their symbol because it just made plain sense. Dr. Gail Malmgreen, Associate Head for Archival Collections and an archivist at the Tamiment Library & Robert F. Wagner Labor Archives, when asked for possible insight to why the logo was used, said that "this type of information was simply not written or collected." Further inquiry regarding the historical use and connection between asbestos and salamanders prompted her to comment that "early trade members were much better educated than those who made a living digging ditches." This is reminiscent of a conversation I had with Archie Green, a well known folklorist and much published writer. When I asked

him the same question, he commented that the person or persons who decided to use the salamander must have "been well-read," which again is consistent of that era.

I was curious if there were any writings of the period that could corroborate the use of the salamander and its association to asbestos. To establish the hard link of the mythological connection between salamanders and the Salamander Association of New York, I conducted an extensive search of the *New York Times* newspaper from 1850 to 1900. Needless to say, salamanders were mentioned several times, including references to the Salamander Association's connection with the Knights of Labor, the mythological references previously mentioned, and several references to bowling league team names. But I was looking for that one piece of documentation that would make the clear connection between the salamander and asbestos. Unfortunately, I could not find such documentation. It's quite possible that it never made it to print. Following the direction of Dr. Ruth Ruttenberg of the George Meany Center for Labor Studies, I went through many *Asbestos Worker Journals* located at the International's office for some type of corroboration, almost to no avail. As previously stated, there was a reference to Marco Polo and salamander's wool in the August 1926 *Asbestos Worker Journal*. And in the February 1966 *Asbestos Worker Journal*, C.W. Sickles the General President addressed the membership's questions regarding the reason for the use of the salamander. Mentioned was the affiliation with the Knights of Labor as "Salamanders," but the one question as to "how and why the salamander was incorporated into the official seal and why the early founders of our organization adopted the name salamander is not quite clear"[45] Archie Green mentioned to me early on, while I was initially conducting my

research, that this type of information was most likely never written because it was "common knowledge back then," referring to the turn of the century.

My guess is that the National Association of Heat, Frost and General Insulators and Asbestos Workers of America came up with the logo, based on the precedent set by the Salamander Association in New York. I state this without knowing for sure and would welcome any input that would prove otherwise. After all, that was the purpose of my research. I had hoped that not only would I be able to give credit where credit is due, but document with fact, not conjecture, the long and meaningful use of the salamander in the Asbestos Workers' logo. But what was common knowledge a hundred years ago is not so obvious now. This rich history has been reduced to one line on the Asbestos Workers' web site ("**according to legend had a skin that was impervious to fire**").

Archie Green is quoted as saying that approximately twenty years ago, he asked the significance of the Salamander of a high ranking Asbestos Workers officer, only to be told that the salamander could withstand heat as well as cold much in the same way a gecko changes color. This might not be completely accurate, but it does illustrate the point that once an anecdote is started, it creates a life of its own. Somewhere along the line, as with most stories, the truth becomes askew. In this case, the legend about the mythical salamander was lost. There is not a simple answer to the question of why the International Association of Heat and Frost Insulators uses the salamander as its logo, but one thing remains certain, that there will be a colorful story behind it, no matter which one you choose.

The author Paul Brodeur was kind enough to respond via email to my inquiries about the correlation between the Salamander and the Asbestos Workers logo, although

he states he made no such connection and that I must have read that into his research. After re-reading his book *Outrageous Misconduct,* it became clear that he only mentions the history of asbestos which included a reference about salamanders' wool and Marco Polo, but does not go so far as to make the connection. "That's OK," said Archie Green, with whom I confided my frustration. He stated that "because all your other research suggests a correlation, your hypothesis should remain true; however the chances of finding actual documentation from the Salamander Association or the Asbestos Workers explaining their reasons for choosing the salamander may not be possible".

46

NOTES

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