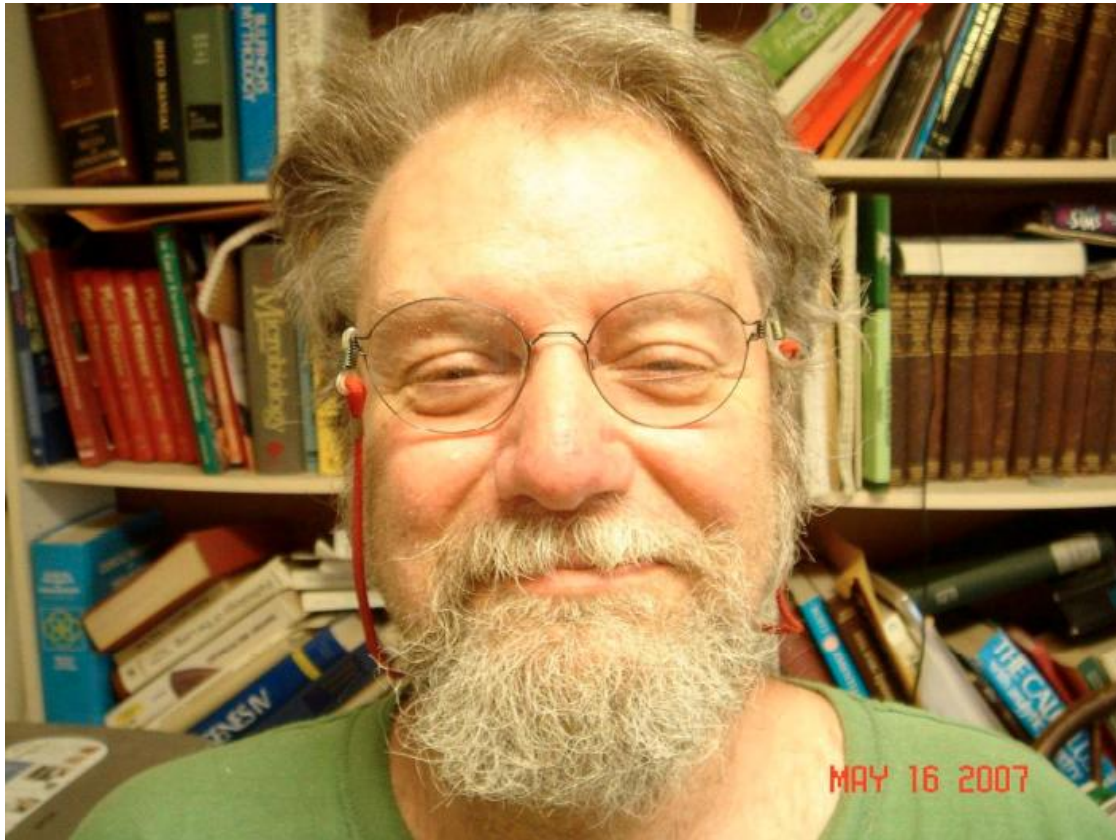




Show Number: 631

June 25, 2021



McGregor "Mac" Pearce, MPH

Tribute Show with: Thoughts from Joe Lstiburek, Mike McGuinness and Pete Consigli

This week we did a special tribute show for one of our all time favorite guests McGregor "Mac" Pearce, MPH. We were joined by some IEQ legends that worked with Mac over the years, Joe Lstiburek, Mike McGuinness and the Restoration Global Watchdog Pete Consigli to discuss Mac's contributions to the industry and then we will replay our favorite Mac Pearce show.

What could possibly be interesting about mold and mildew, you ask? It's all in the content and the presentation style of the person discussing the subject. IAQ Radio

is delighted to memorialize internationally known and acclaimed expert on the subject McGregor Pearce of St. Paul, Minnesota. Mac was an environmental health consultant specializing in indoor air quality problems. He held a Masters in Public Health from the University of Minnesota and was a nationally recognized speaker on mold issues. Mr. Pearce was one of the instructors at The Mid Atlantic Environmental Hygiene Resource Center (MEHRC) which was founded in 1992 as a program of the University Science Center, a Pennsylvania science and technology corporation owned by 28 colleges, universities and academic centers from three states. Mac investigated mold in homes, commercial buildings, hospitals, clinics and skyscrapers and he made mycology marvelously interesting. Mac loved learning; never ceasing to peruse books, engaging with friends, swimming at Big Watab Lake, and hiking at river cabin near Brainerd.

Z-Man reminisces:

Mac blipped on my radar screen when I found an article he had written on flood damaged homes. After speaking with him by phone, I wanted to 'share him with my world', those engaged in disaster repair and water damage restoration.

I was instrumental in selecting him as one of the speakers for inaugural Water Loss Institute held in the San Francisco Bay Area. While taken aback by his choice of attire, when his turn came at the podium, Mac Absolutely Killed It!!!! He was *edu-taining*: informative, entertaining and voted most popular speaker on the program. This was Mac's formal introduction to disaster repair and also where he met Pete Consigli who introduced Mac to many, many others.

Mike McGuinness reminisces:

- Admired Mac Pearce's presentation skills. Two winters ago while making a presentation in Florida a member of the audience asked a dumb question, channeling his inner Mac, Mike responded with "I really don't like you!"
- Mike McGuinness, Mac Pearce and Davidge Warfield taught the industry's first mold remediation workers course in Philadelphia at MidAtlantic Environmental Hygiene Resource Center (MEHRC). Mac was given 4 hours and the audience was advised to put tray tables up and buckle their seatbelts.

- While touring with Mac teaching road courses, Mac introduced Mike to Hank Ballard's music. Mac sent Mike a Hank Ballard CD which included the song work with me Annie.
- At courses Mike's student handout spanned 80 pages of notes, Mac's handout was 2 pages.
- Mac had disdain for contractors who would underestimate the amount of remediation work required to curry favor with insurance adjusters.
- Send prayers to Mac for: kindness, goodness and humor.

Mac-isms

- Mold is nature's garbage disposal.
- Life is solar-powered
- Self-composting homes
- Macrophages are like pit bulls on steroids.

Joe Lstiburek reminisces:

My story is short...the day I met him at an EEBA conference in Minneapolis...they slotted the both of us together at 8 am on Saturday the last day of the conference...there were about 5 people in the room...I had no idea who he was... I spent the session laughing my ass off....in his opening couple of minutes he gave the memorable line that I have been using for 25 years...."You could probably talk a blindfolded drunk epileptic to cross Niagara Falls on a high wire without a net...but it wouldn't be a good idea..." I got him to present at Summer Camp twice...he was the only presenter to get a standing ovation - twice....

While sailing on a sailboat on smooth water in Seward, Alaska, was surprised to learn that Mac (a water expert) hated to be on the water.

Joe an international renown engineer and building scientist. Was surprised when Mac referred to him as a mold expert. You don't look for mold by looking for mold, you look for mold by looking for water. You look for where water is and was.

Mac opined that mold testing is a waste of time and money.

Mac had poor taste in wine. We spent time eating unhealthy food, drinking good wine and telling stories. Photo of Mac with bottle of Sassicaia 1997 wine.

G. Pete Consigli reminisces:

- Above all Mac was a building scientist.
- While encouraged to formally complete his PhD, Mac got his higher education through practical field experience.
- Mac had a gift for making complex principles educational and fun to listen to.
- Mac always opined it was the water first and that mold was secondary.
- Mac received recognition from his peers in the form of a Restoration Good Guy award from RIA (given at summer camp) for bridging the gap between water damage restoration and building science.
- Remembered the first mold remediation workers course at MEHRC. A bearded Cliff Zlotnik passed irritant smoke respirator fit testing. Many prominent mold trainers were in the class.
- Toured with Mac Pearce doing CEC courses for insurance agents and adjusters. The courses were very popular. Pete was the ringmaster and Mac was the show pony. Pete and Mac adlibbed like Abbott and Costello.
- A sample is just an opinion.
- If you don't understand the principles it doesn't matter how much you know.

Nuggets mined from the Mac Pearce interview:

- Less enamored with gadgets.
- Lab reports are taking unnecessary deep dives into fungal speciation.
- Moisture meters are my friends. Prefers simplicity and reliability of Delmhorst analog pin meter. Digital screens are less reliable.
- Infrared camera are gaining in popularity.
- The issue is often the aftermath of water intrusion.
- Sample is estimating the greater reality.
- Consulted on an illegal marijuana grow house. Marijuana was grown in the basement and large holes cut through floors above for venting moisture out. Accidentally discovered during the winter when neighbors saw moisture escaping and thought it was smoke. House sat vacant for 2 years. When he

inspected the property there wasn't a whiff of musty mold. He isn't a bloodhound and doesn't have a particularly good sense of smell. If he can smell mold it's probably pretty bad. City inspector wanted pre and post remediation testing and wanted Mac to prepare the remediation protocol. Tape lifts show fungal growth you can't see. When fungal structures are found on surfaces they must be scrubbed clean, especially engineered wood. Inspection gadgets were of minimal use. Primarily used tape lifts and contact plates. Mac does his own microscopy analyses. When air sampled the house had lower levels than outside. Did not sample for marijuana related chemical contamination. You need to sample for what you are looking for, you can't take a bulk chemical indoor sample and expect to find everything that is there, the lab needs to know what to look for.

- Horrible things can be found in water samples.
- Allergenicity of mold is subjective.
- Much of what we know about immune response is based upon HIV studies.
- People and animals aren't poisoned by mold unless it is ingested.
- Dose, risk, response. To alleviate client fears of *Stachybotrys*, Mac would lick finger, wipe suspected area and put in his mouth.
- Detests, panic mongers scaring clients into buying expensive unneeded services. A charge of \$12K to remove 1 square foot of *Stachybotrys* contaminated drywall.
- *Stachybotrys* is toxic to the wallets of the people paying for the remediation.
- The more damp the home the more miserable for the occupants.

Mold is important to soil. Soil is vital tissue of the earth. From soil springs new life. Mold is nature's decontamination team. Soil makes carcasses useful. Even the worst person you know will be useful once they die, are digested by soil and able to grow something. Most anything that falls into soil will be digested. Mold has many nuclei. Mistakes in DNA are what cause evolutionary change. In microhabitats 'progressive evolutionary smartness' is built-in. Life on earth is amazing. How little we know.

Carbon monoxide (CO) versus *Stachybotrys*. When inhaled, CO denies oxygen to tissue. When ingested, *Stachy* is an acute toxin which causes lesions and bleeding.

Why do mold spores remain airborne indoors? Mold spores are small and lightweight. The settling velocity of fungal spores <5 microns is slowed by the viscosity of air.

Blower doors were invented and are made in Minnesota. Blower doors are used to determine the energy rating of homes. Blower door covers the entry door opening of a home. The blower door has opening for large fan and openings for attaching monitoring equipment. During use the blower door in conjunction with smoke pencils will show the leaky areas. Controversy over the potential for blower doors to suck contaminants from where previously deposited into the interior of the home. Air leakage comes in through the largest openings. Mac opined that he has never seen a case where using a blower door testing contaminated the inside of a home. Some juries have been convinced that mold can be sucked out of walls and into the home during blower door testing and made occupant sick. Somebody that wimpy deserves to be shot.

- Some legal expert witnesses outcharge attorneys.

Stupid, Stupid² & Stupid³? - Stupid is pouring a concrete slab without proper site preparation, draining water away from the slab. Stupid² is installing carpet on the slab. Stupid³ is gluing the carpet directly to the slab.

- Nature doesn't get offended.

Expensive air cleaners for sick kids? - Parents with sick kids are vulnerable and easily conned. You are better off removing the source than trying to clean all the air in the entire building. Mac suggest removing carpet and remove settled dust by investing in a good vacuum cleaner.

Are crawl spaces with dirt floor and concrete slab created equal? Mac opines that there should be only 2 environmental conditions, inside and outside. An unconditioned crawl space falls in between inside and outside and causes problems. The inside should be entirely conditioned. With geography and location being equal, more moisture will enter through a dirt floor than enters through a concrete slab. Mold growth on materials is driven by water activity. Dirt floor in crawl spaces can be covered with durable polyfilm, with taped seamed and good attachment to walls. Don't use the trash bag approach, putting plastic down

without sealing seams and attaching to walls. Code requirements in some areas require ventilation crawlspaces which adds moisture and creates mold problems.

Mac has cultured mold off of concrete block in crawl spaces which may have been growing on the concrete.

Tents aren't energy efficient. Make tight, ventilate right. You can't afford to build a leaky home anywhere except California coast. Mechanical ventilators have potential. Fancy ventilation is too complicated for homeowners to operate and maintain, they simply want to use a key to enter and flip a switch. Mac has seen HRVs intakes clogged with dust, spores, pollen and debris. Simple and effective ventilation of the entire building is desirable.

Moisture migrates through concrete via capillary action, does high density concrete stop moisture movement? Is high density concrete medicine to keep people who aren't sick healthy?

Tyvek is an air barrier. Window installation design has improved with built pan flashings. Old stucco (while energy inefficient) is durable and has continually performed well in Mac's neighborhood of 100 year old homes. In the suburbs concrete stucco smushed up against engineered wood fails quickly due to absence of capillary break. Make buildings that breathe breathable by use of exterior insulating systems with capillary and air breaks and empty interior wall cavities.

Every building is a science experiment.

Sewage spill in a dirt crawl space. When sewage bacteria enters the soil, it's like rich kids from suburbs going into the hood. Soil bacterium are self purifying.

Roundup

Z-Man

I had an opportunity to use Mac on a consulting project in NYC, the former Bear Stearns Building under construction. While Mac and I were having dinner in the tiny restaurant of our hotel, we first heard the bellowing voice of and then encountered the actor James Earl Jones.

When they build a skyscraper there is always a deadline. They start at the bottom and build up and the last thing to go on is the roof. To meet the deadline on the

lower floors they are hanging drywall, installing flooring, wallcovering, painting. All of this while the roof was open with ongoing water intrusion.

The next day, during our walkthrough of the building with the contractors representative and vividly remember 3 things: mold in the elevator shafts, the representatives insisting that no pup tents (containment structures) be used during remediation, and HLS.

During the inspection of the basement of the building, the contractor's representative found orange and black mold in the basement which he referred to as "Halloween Looking Shit", from then on Mac and I referred to it as "HLS". Every Halloween when the pumpkin decorations come out, I chuckle when think of HLS.

Restoration Industry Global Watchdog Pete Consigli:

Mac and Joe Lstiburek were the highest rated speakers at RIA events for over 15 years whenever they were on the program!

- Chavez brothers in Topeka Kansas hosted Mac and Pete for CEC courses, for lunch catering (complete with oversized cookies for dessert) was by Boss Hawgs. Boss Hawgs motto was a smiling pig with the tag line, "horrifying vegetarians since 1995".
- 2007 RIA Fall Conference in Garden Grove, CA , San Diego wildfire smoke was in the lobby. Mac presented the Idiot's Guide for the Rules of Drying!
- 2010 RIA Albuquerque Fall Conference, Mac presented case studies with all photos and captivated the audience.
- Pete's driving skills are questionable as attested by friends who rode with him. While Pete and Mac were traveling together, Mac found it disconcerting that Pete kept his eyes on him rather than on the road. Mac volunteered to drive while Pete napped. When Pete woke up he found that Mac had taken a wrong turn and driven several hours in the wrong direction. Pete was more upset about having to call the client and tell him they'd be late for dinner.
- Mac was a good friend, who was highly talented; you always knew where you stood with him.
- Live everyday to the fullest, you never know when your time is up.

Z-Man

Mac was a unique personality: brilliant, witty, opinionated and never afraid to speak his mind on any subject. Mac was an edu-tainer some with the rare gift of being able to present boring scientific information and make it understandable, entertaining and memorable.

Mac was loved by people outside of his family and will be missed by people outside of the family!

My favorite Mac-ism: Even the dumbest of the 3 little pigs, was smart enough not to build his house out of paper.

Links and Resources

- [C&R Brief on Restoration Good Guys Nov 2009](#)
- [Moldy Drywall Study - Mac Pearce](#)
- [Mac's Idiots Guide to Rules of Drying 10.14.2007- Garden Grove CA](#)

Z-Man Signing off

Trivia question:

"The Three Little Pigs" is a fable about three pigs who build three houses of different materials. A Big Bad Wolf blows down the first two pigs' houses, but is unable to destroy the third pig's house." – Wikipedia

From what materials were the 3 homes made?

Answer:

Straw, Sticks and Bricks

Answered by: Vic Cafaro