

Mortar: The Glue That Holds Your Home Together

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Chapter 1: The Glue That Holds It Together

Look at any brick home and the brick gets all the attention. It is the color, the texture, the face of the wall. But brick is not what holds your house together. Mortar is.

Mortar does three jobs in every brick wall, and if you understand those three jobs, you understand almost everything else in this book. The jobs are simple to say and easy to forget: bond the units, cushion movement, and seal out water.

First, mortar bonds the units. A wall is thousands of separate pieces of fired clay — bricks — stacked one on top of another. Without mortar, they would be a pile. Mortar is the adhesive that ties them into a single structure. It grips

each brick and ties it to its neighbors, and over the years, as the mortar cures, the wall becomes one continuous system. That is the bonding job.

Second, mortar cushions movement. Here is something most homeowners never think about: your house moves. Not in a way you can see, but it moves. In North Texas, the clay soil under your foundation swells when it rains and shrinks when the summer heat bakes it. That movement pushes and pulls on the brick veneer. The sun heats one side of the house while the other side stays in shade, and materials expand and contract at different rates. A house settles a fraction of an inch here and there. All of that motion has to go somewhere, and mortar is designed to take up the slack. Good mortar is sacrificial — it gives a little so the brick does not have to crack. Think of mortar as the flexible cushion between rigid bricks. When movement happens, the mortar absorbs it. That is its second job.

Third, mortar seals out water. Every joint between bricks is a seam, and seams are where water tries to get in. Mortar fills those seams completely, edge to edge, and forms a weather barrier across the whole face of the wall. It is not waterproof in the way a rubber membrane is, but it is the first and most important line of defense. When mortar is intact, rain hits the wall and sheds off. When mortar is cracked, receding, or missing, water gets behind the brick — and water behind brick causes damage that costs real money to fix.

Those three jobs — bond, cushion, seal — are the whole reason mortar exists. A mason who does not understand all three will give you joints that look fine on day one and fail in five years.

Now, one of the most common points of confusion I run into with homeowners: mortar is not concrete. They look alike when wet, they both use cement, and people use the words interchangeably. They are not the same thing, and using one in place of the other is a real problem.

Concrete is built for compressive strength. It has coarse aggregate — gravel, crushed stone — and it is designed to bear heavy loads: foundations, driveways, slabs. It is hard, rigid, and strong. Mortar is built for bonding and flexibility. It uses fine aggregate — sand — and it is designed to hold masonry units together while allowing a controlled amount of give. Concrete wants to

be as strong as possible. Mortar wants to be as strong as necessary and no stronger.

That last sentence matters more than anything else in this chapter, so I will say it plainly: mortar should never be harder than the brick it surrounds. I will explain why in detail in Chapter 2, but the short version is this — if the mortar is harder than the brick, the brick loses. When the wall moves, something has to give. If the mortar will not give, the brick face will pop and crack instead. You can always repoint mortar. You cannot un-crack a brick.

People ask me all the time how long mortar is supposed to last. The honest answer is that it depends — on the mix, on the exposure, on the maintenance, on the soil it sits on. A well-built wall with the right mortar, maintained properly, can go decades before it needs attention. A wall built with the wrong mix, or one that has been fighting water for years, can fail in ten. There is no expiration date stamped on the side. That is why this book exists: so you can look at your own walls with informed eyes and know whether the mortar is doing its job or asking for help.

Everything that follows builds on these three jobs. When you read about mortar types, you will see how the mix changes which job gets emphasized. When you read about failure, you will see what happens when one of the three jobs breaks down. And when you read about repointing, you will see how the right repair restores all three at once.

The Three Jobs in Real Life

It helps to see the three jobs working together in a single scenario. For example, imagine a homeowner who notices a hairline crack running along a mortar joint on the west wall of the house after a summer of extreme heat. The wall expanded in the afternoon sun and contracted at night, day after day, and the mortar — doing its cushioning job — developed a hairline crack to absorb the movement. That is the system working as designed. The crack is small, it follows the joint, and the wall is otherwise sound.

Now imagine the same homeowner ignores it for three years. Rain finds the crack. Water enters the joint — the sealing job is now compromised — and each winter a little freeze-thaw action widens the opening. The crack grows from a hairline to a gap. The bond between the mortar and the brick on either

side of the crack weakens as water works in behind it. Now one failed job has become three: the cushion cracked, the seal broke, and the bond is letting go. What started as a thirty-minute repair is now a section of wall that needs full repointing.

This is the pattern behind most mortar work I see: one job fails first, usually the seal or the cushion, and the others follow if nobody intervenes. The good news is that the sequence also runs in reverse. Restore any one of the three jobs properly — repoint the joint with the right mortar, full depth, well tooled — and you restore all three at once, because a sound joint bonds, cushions, and seals simultaneously. That is why timely repointing is so cost-effective: you are not just patching a crack, you are resetting all three jobs for another few decades.

One more thing worth understanding early: the three jobs explain why mortar problems so often look like something else. A homeowner sees a water stain on an interior wall and calls a roofer. A homeowner sees a stair-step crack and fears the foundation. Sometimes those instincts are right. But often the trail leads back to the joints — to mortar that stopped sealing, stopped cushioning, or stopped bonding. When you learn to check the mortar first, you stop chasing symptoms and start finding causes. That habit alone will save you money over the life of the house.

The brick is the face. The mortar is the glue. And the glue is what holds your home together.

Chapter 2: Know Your Types: O, N, S (and M)

If you have ever bought a bag of mortar mix at the hardware store, you have seen the letters: O, N, S, M. They look like a grading scale, and in a way they are — but the grade is compressive strength, not quality. A "better" letter does not mean a better mortar for your wall. It means a stronger mortar. And stronger is not always better. This is one of the most important things a homeowner can know, and one of the least understood.

The four standard mortar types are defined by ASTM C270, the industry standard that sets the recipe proportions and minimum compressive strengths. Here is what each one means.

Type O — about 350 psi. This is the soft mortar. It has a high lime content and a low Portland cement content, which makes it flexible and easy to work with. Type O is the right choice for historic masonry — soft, old brick, soft stone, and restoration work where the existing mortar is also soft. In parts of the country with 100-year-old brick, Type O is the standard. Here in Texas, most of our housing stock is newer, but plenty of older homes in Dallas and Fort Worth have soft brick that needs this type. Type O is forgiving. It moves with the wall.

Type N — about 750 psi. This is the general-purpose mortar, and it is the most common type used in residential construction in America today. It has a medium compressive strength, good bond, and enough flexibility for normal above-grade brick veneer work. If your house was built in the last forty or fifty years with ordinary brick veneer, there is a good chance the original mortar was Type N or something close to it. For most repointing work on ordinary residential brick, Type N is the default answer.

Type S — about 1,800 psi. This is high-strength mortar. It has a high Portland cement content and relatively low lime. It is used where strength matters: below-grade work, foundation walls, retaining walls, places where the masonry is carrying real loads or fighting soil pressure and lateral forces. Type S is a workhorse for structural masonry, but it is stiff. It does not flex much.

Type M — about 2,500 psi. This is the heaviest of the four. It is for heavy-load applications — below grade, massive masonry, stone foundations carrying serious weight. You will rarely see Type M on a residential brick veneer wall, and for good reason.

Notice the pattern: as you move from O to M, compressive strength goes up and lime content goes down. Lime is the ingredient that gives mortar its flexibility, its workability, and its ability to self-heal small cracks. Portland cement is the ingredient that gives it strength and rigidity. The balance between the two is the whole game.

Now here is the rule that should be painted on every bag of mortar mix sold in Texas: **the mortar should be softer than the brick it surrounds.** Weaker than the unit, not stronger.

Why? Because of the second job from Chapter 1 — cushioning movement. Every wall moves. Temperature changes, soil movement, settlement, vibration. When the wall moves, the stress has to go somewhere. If the mortar is softer than the brick, the mortar takes the stress: it may develop a hairline crack, which is a mortar repair — annoying, but straightforward and cheap. If the mortar is harder than the brick, the stress goes into the brick itself: the face of the brick spalls, cracks, or pops off. That is a brick replacement — expensive, hard to match, and permanent.

This is exactly what happens when someone repoints an older home with a modern Portland-heavy mix. The original wall was built with soft mortar — high lime, low cement. The repointing crew comes in with bagged Type S because "stronger is better." Five years later, the mortar joints look perfect and the brick faces are crumbling. The mortar won and the brick lost. I have seen this on houses all over Dallas–Fort Worth, and it is one of the saddest kinds of damage because it was entirely preventable — it was caused by the repair itself.

So how do you know which type your house has? The simplest field test is the scratch test. Take a screwdriver and try to scratch the mortar in a joint. If it scratches easily and powder comes off, you are probably looking at a soft, high-lime mortar — Type O or a lime mortar. If it resists and barely marks, you are looking at a hard, Portland-heavy mortar — Type S or M. Type N sits in the middle. I will cover diagnosis in detail in Chapter 5, but this quick test tells you which family your mortar belongs to.

The matching principle is this: when you repoint, the new mortar should be the same type as the old — or one step softer, never harder. If the wall is Type N, repoint with Type N. If it is Type O, repoint with Type O. If you are not sure, err softer. A slightly soft repoint job that lasts twenty years beats a hard one that destroys the brick in ten.

There is one more wrinkle worth knowing: the mortar you buy in a bag is not necessarily the mortar that ends up in the wall. Field-mixed mortar — where the mason mixes Portland cement, lime, and sand on site in the right proportions — is the traditional way, and in the hands of an experienced mason it is the best way, because the mix can be tuned to the brick. Bagged pre-mixed mortars are consistent and convenient, and many are perfectly

fine. The problem is not bagged vs. site-mixed; the problem is using the wrong type. A bag of Type S used on soft brick is wrong whether it was mixed in a factory or on a tailgate.

When I talk to a homeowner about repointing, the first technical question I ask is always the same: what type of mortar is in the wall now? Everything flows from that answer — the mix I will use, the tools I will use to remove the old mortar, and how I will talk about expectations. Get the type right and the rest of the job has a chance. Get it wrong and nothing else you do will save it.

Reading the Bag: What the Label Actually Tells You

Walk into any building supply store and you will find bags labeled Type N, Type S, and sometimes Type M mortar mix, plus bags of Portland cement, bags of hydrated lime, and bags of masonry sand sold separately. Knowing how to read these labels keeps you from buying the wrong material — which, as this chapter has shown, is one of the most damaging mistakes in masonry.

A bag labeled "Type N Mortar Mix" contains a pre-proportioned blend of Portland cement, hydrated lime, and sand, formulated to meet the Type N strength requirement of roughly 750 psi. "Type S" is the same idea at roughly 1,800 psi. These are convenient and consistent, and for ordinary work they are perfectly good materials. But notice what the bag does not tell you: it does not tell you whether Type N is right for your wall. The bag answers "what strength is this?" — it cannot answer "what strength does your brick need?" That answer comes from the wall, not the shelf.

You will also see bags of "masonry cement." This is a pre-blended cement product — Portland cement blended with plasticizers and air-entraining agents, but no lime — designed to be mixed with sand. Mortar made with masonry cement instead of Portland-plus-lime behaves a little differently: it is very workable and it resists water penetration well, but it is less flexible than a true lime mortar and it does not self-heal micro-cracks the way lime does. For ordinary modern brick veneer, masonry-cement mortar is common and acceptable. For historic soft brick, a true Portland-and-lime mix (or a lime-rich mix) is the safer choice. If your mason talks about his mix, ask whether it is a Portland-lime blend or a masonry-cement blend, and why he chose it for your wall. Either can be right; the reasoning is what matters.

Then there are the separate bags: Portland cement (usually Type I/II), hydrated lime (Type S lime is the masonry grade), and sand. Buying these separately is how field mixing is done — the mason proportions them on site. The classic field recipes, by volume, are roughly: Type N — 1 part Portland cement, 1 part lime, 6 parts sand. Type S — 2 parts Portland cement, 1 part lime, 9 parts sand. Type O — 1 part Portland cement, 2 parts lime, 9 parts sand. You do not need to memorize these, but knowing they exist helps you understand what your mason means when he says "I'll mix it a little rich on the lime for this brick." He is tuning the strength and flexibility to the wall — and that is exactly what you want to hear.

One label warning: avoid anything marketed as "high-strength," "extra-strong," or "commercial grade" for residential repointing unless your mason has a specific structural reason. Those products are almost always Type S or harder, and on ordinary brick veneer — especially older brick — they are the wrong tool. Stronger is not better. The right strength is better.

When in doubt, bring the question back to the rule: softer than the brick. Always.

Chapter 3: Why Mortar Fails

Mortar does not fail for mysterious reasons. In fifty years of looking at brick walls, I have found that nearly every mortar failure comes down to one of six causes. Understand these six and you can diagnose almost any wall you walk up to.

1. Age and weather. This is the honest, unavoidable one. Mortar is a cement-based material sitting out in the weather for decades. Sun, rain, wind, and temperature swings wear it down grain by grain. The surface of the joint slowly erodes. Lime leaches out over time. After thirty, forty, fifty years, the mortar in the most exposed parts of the wall — the top of a chimney, the south-facing wall that takes the afternoon sun, the joints near the ground where splash-back hits — starts to recede and soften. This is normal aging. It does not mean the wall was built wrong. It means the mortar has done its job for a long time and is asking for renewal.

2. Water infiltration. Water is the great enemy of mortar, and it attacks in several ways. Rain driven against the wall soaks into the joints; when the mortar is saturated and the temperature drops below freezing, the water in the pores expands as it turns to ice, and that expansion breaks the mortar apart from the inside. This is the freeze-thaw cycle, and even here in Texas we get enough hard freezes each winter to do real damage — especially in the Panhandle and North Texas, and especially on walls that stay wet. Water also carries dissolved salts; when the water evaporates, the salts crystallize inside the pores and push the mortar apart. And water that gets behind the brick — through failed flashing, missing weep holes, bad gutters — keeps the back of the mortar wet constantly, which softens it from the inside out. Most of the worst mortar failures I see are water failures wearing a mortar costume.

3. The wrong mix for the brick. This is the man-made failure. Somebody used a mortar that did not belong on that wall. The classic version: hard Portland-cement mortar on soft brick. I covered this in Chapter 2, but it deserves repeating here because it is so common. A homeowner or a well-meaning handyman repoints with whatever bag is on sale — usually a high-strength mix — and the wall looks great for a few years. Then the brick starts spalling. The faces pop off. The damage is irreversible because you cannot rebuild a brick face. The other version is less dramatic but still wrong: using a soft mortar where a structural wall needs strength, or using a mix with no lime where flexibility is needed. Every brick has a mortar it wants. Give it the wrong one and the wall will tell you — slowly, then all at once.

4. Hard Portland-heavy mortar on soft brick — the special case. I am giving this its own entry because it is the single most damaging and most preventable failure in residential masonry. Older homes — and many homes in the older neighborhoods of Dallas and Fort Worth — were built with soft brick and soft, high-lime mortar. That pairing worked for decades because both materials moved together. Then someone comes along with a grinder and a bag of Type S and repoints the whole house. The new mortar is three to five times stronger than the old. Now the wall moves and the mortar will not give, so the brick gives instead. Within five to ten years, the brick faces are crumbling while the joints look brand new. If your home was built before the 1960s, assume the brick is soft until proven otherwise, and never let anyone put a hard mortar on it.

5. Poor workmanship. Mortar is a craft material, and bad craft shows up fast. Joints that were not filled completely leave voids where water collects. Mortar smeared on the brick face instead of kept in the joint looks bad and weathers badly. Mortar mixed too wet or too dry never reaches its intended strength. Mortar allowed to dry too fast in Texas summer heat — without proper curing — ends up weak and crumbly. Retempering, which is adding water to a batch that has started to set, is a shortcut that produces weak joints. I have seen repointing jobs fail in two years because the joints were never packed full, and I have seen original construction from the 1970s still going strong because the mason took his time and did it right. The material gets the blame, but the hands matter just as much.

6. Texas heat and freeze-thaw. Texas gives mortar a uniquely harsh life. Our summers bake walls to temperatures that would surprise you — a dark brick wall in August afternoon sun can be far hotter than the air temperature, and that heat drives moisture out of fresh mortar too fast during curing and stresses old mortar year after year. Then winter brings the freeze-thaw: we do not get the long deep freezes of the northern states, but we get plenty of nights below freezing followed by warm afternoons — and that cycling, wet-freeze-dry-freeze, is exactly what breaks mortar apart. Add our expansive clay soils, which heave and settle with every wet and dry cycle and move the whole wall, and add our hail, which chips and pits mortar joints on exposed walls and chimneys. A Texas wall lives harder than a wall in a mild climate. It needs the right mortar and it needs attention on schedule, not "someday."

Here is the practical takeaway. When you look at your walls, you are looking for which of these six stories the wall is telling. Uniform erosion on the weather side? Age and weather. Damage concentrated where water runs or sits? Water infiltration. Brick faces crumbling while joints look new? Wrong mix — too hard. Damage everywhere including sheltered spots? Possibly workmanship. Damage on the south and west exposures first? Heat and sun. Once you know the cause, you know the fix — and just as important, you know what has to change so the fix lasts. Repointing a wall without fixing the gutter that caused the failure is just scheduling the next repointing job.

How Failures Combine

In the real world, mortar rarely fails from one cause alone. The six causes above usually team up, and understanding how they combine is what separates a repair that lasts from one that does not. For example, imagine a homeowner who notices the mortar crumbling at the top of a chimney. The story is almost never just "age." It is age plus water: decades of weather wore the joints thin, and then a missing chimney cap — or a failed piece of flashing where the chimney meets the roof — let water pour directly into the top courses. The water saturated the already-weakened mortar, winter freezes expanded it, and the top of the chimney is now shedding mortar every time the wind blows. Three causes, one failure. Fix the mortar without fixing the cap and the flashing, and you have scheduled the next failure.

Here is another common combination I see all over North Texas: expansive soil plus the wrong mix. The clay soil swells in a wet spring and shrinks in a dry August, and the house rides those cycles — tiny movements, twice a year, every year. A wall with the right flexible mortar absorbs those cycles for decades. But if a previous owner repointed with a hard Portland-heavy mix, the wall cannot flex anymore. The soil still moves — the soil does not care about your mortar — so the stress goes into the brick. Year by year, the brick faces start to spall. The homeowner sees crumbling brick and assumes the brick was defective. The brick was fine. The combination of moving soil and unforgiving mortar did it.

Workmanship and water are another frequent pair. A repointing job where the joints were not packed full leaves small voids behind the face of the joint. Those voids are invisible on day one. But they collect water — every rain drives a little moisture into the hollow spots — and the trapped water works through freeze-thaw cycles right where the joint is weakest. A well-packed joint sheds water; a hollow joint incubates it. Five years later the "new" mortar is failing, and the homeowner concludes repointing does not last. Repointing lasts. Hollow joints do not.

The practical point: when you diagnose a wall, look for the combination, not just the headline. Crumbling mortar at the base of the wall is not just "age" — check the grading and the sprinklers. Spalling brick is not just "bad brick" — check the mortar hardness. Damage that keeps coming back in the same spot

is not bad luck — there is a water source or a movement source you have not found yet. Every recurring failure has a partner cause hiding behind it. Find both, fix both, and the repair holds.

In the next chapter, we will sort out two terms that get mixed up constantly — repointing and tuckpointing — because knowing which one you actually need is the difference between the right repair and the wrong one.

Chapter 4: Repointing vs Tuckpointing

Ask ten people what "tuckpointing" means and you will get ten answers, and most of them will be wrong. This is one of the most confused pairs of terms in all of home improvement, and the confusion costs homeowners money — because repointing and tuckpointing are different jobs, done for different reasons, at different prices.

Let us get the definitions straight.

Repointing is the process of removing deteriorated mortar from the joints of a masonry wall and replacing it with new mortar. That is it. You cut or rake out the old, failed mortar to a proper depth — typically to a depth equal to about twice the width of the joint, or until you reach sound mortar — and you pack new mortar in, fill the joint completely, and tool it to the right profile.

Repointing is a repair. Its purpose is structural and protective: restore the bond, restore the cushion, restore the seal against water. When a mason says your house "needs repointing," he means the mortar is failing and it needs to be replaced. This is the job described in this book, and it is what the vast majority of brick homeowners actually need.

Tuckpointing is a decorative technique, and a very old one. It dates back to 18th-century England. The idea: you fill the joints with mortar that matches the color of the brick — often a reddish or brownish mortar — and then, while it is still workable, you press a thin, precise line of contrasting putty or fine mortar (traditionally white or cream) into the center of the joint. The result is the illusion of perfectly thin, crisp, fine joints — the look of high-end gauged brickwork — even though the actual joints underneath are wide and rough. Tuckpointing is cosmetic. It is about appearance, not repair. It was invented to make cheap, rough brickwork look like expensive, precise brickwork.

So why the confusion? Because at some point in the American home-improvement vocabulary, "tuckpointing" started being used as a fancy word for repointing. Contractors say "tuckpointing" because it sounds skilled and specialized, and homeowners repeat it because they heard it from the contractor. Today, if you call three masons and ask for "tuckpointing," all three will probably quote you for repointing — removing and replacing mortar — and call it tuckpointing. The industry has largely surrendered the distinction in everyday speech.

But the distinction still matters, and here is why: **price and scope**. True tuckpointing — the two-color decorative technique — is far more labor-intensive than repointing. Every joint gets two applications and a hand-cut fine line. If a contractor quotes you for "tuckpointing" at a repointing price, you are getting repointing with a fancy name, which is fine as long as the work is good. But if you actually want the decorative tuckpoint finish — say, on a historic home where that crisp-line look is part of the character — you need to say so explicitly and expect to pay for the extra labor. And if a contractor charges you a premium for "tuckpointing" and then just repoints, you have paid for a word.

Here is my practical advice. When you talk to a mason, use the word **repointing** for the repair job: "I need the deteriorated mortar joints on the east wall repointed." If you want the decorative two-color finish, say so in plain words: "I want the joints repointed and then finished with the traditional tuckpointed fine line." Make the contractor describe the actual steps — what gets removed, how deep, what goes back in — instead of hiding behind a term. The steps are what you are paying for.

When does each apply? **Repointing applies** whenever mortar is deteriorated: crumbling, receding, cracked, or missing, on any brick wall, any age. It is maintenance, and almost every brick home needs it somewhere, sometime. **Tuckpointing applies** when the goal is appearance: historic restorations where the original had that fine-line look, or high-end new work where the homeowner wants that crisp, precise aesthetic. You can also have both — a wall that is repointed for soundness and then tuckpointed for looks — but that is two jobs, and it should be priced as two jobs.

One more note for Texas homeowners: true decorative tuckpointing is rare in our market. Our housing stock is mostly 20th-century brick veneer, and the crisp tuckpointed line is a feature of older eastern and midwestern brickwork. If a Dallas-area contractor pushes "tuckpointing" hard as the solution to your crumbling joints, ask him to describe the steps. Nine times out of ten, he means repointing. Get the steps in writing, and you will always know what you are buying.

What to Put in Writing

Because the terms are so confused in the trade, the contract is where you protect yourself. Whatever word the contractor uses in conversation, the written scope should describe steps, not labels. Here is what a clear repointing scope looks like on paper:

- Which walls or areas are included (e.g., "entire east elevation, approximately 400 sq ft," not "front of house").
- The removal method and depth (e.g., "grind out deteriorated mortar to a minimum depth of 3/4 inch or to sound mortar, whichever is deeper").
- The mortar type to be used and why (e.g., "Type N Portland-lime mortar to match existing").
- Whether color matching is included, and to what standard (e.g., "custom color match via test panels, approved by homeowner before full application").
- The joint profile to be tooled (e.g., "concave, to match existing").
- Dust control measures, protection of landscaping and adjacent surfaces, and cleanup standards.
- Curing provisions (e.g., "joints to be kept damp for a minimum of three days").

If you actually want decorative tuckpointing — the two-color fine-line finish — it needs its own line: "tuckpoint finish: contrasting fine line applied to all repointed joints," with the understanding that it is additional labor at an additional price. If the contractor's quote just says "tuckpointing" with no step-by-step description, ask for the steps. A legitimate mason will not be bothered by the question. A vague quote at a premium price, on the other hand, is exactly how homeowners pay tuckpointing prices for repointing work.

One more contract point: get the mortar type in writing. It is the single most consequential technical decision in the job — Chapter 2's rule, softer than the brick — and it should not live only in a verbal conversation. "Contractor to use Type N mortar" is one line. If a dispute ever arises about damaged brick, that line is the difference between an accountable job and a shrug.

Words matter because money follows words. Now that the terms are straight, the next chapter will teach you to read your own joints — to look at a wall and know what the mortar is telling you.

Chapter 5: Reading a Joint

A brick wall talks. Not in words, but in the condition of its mortar joints — and once you learn to read them, you can walk up to any house and know a great deal about what is going on inside that wall. This chapter is about diagnosis: what to look for, what it means, and how to tell a cosmetic issue from a real problem.

Start with a slow walk around the house. Look at the mortar joints — the lines between the bricks — the way you would look at the grout in a tile shower: are the lines full and even, or are they telling a story? Work in good daylight, and look at every side of the house, because each exposure ages differently. The south and west walls take the brutal Texas afternoon sun. The north wall stays damp longer. The wall under the dripping gutter has its own story. Compare them.

Here is what you are looking for.

Crumbling mortar. The joint surface is breaking apart. You can see loose grains, the edges of the joint are ragged, and pieces flake off when you touch them. Crumbling means the mortar has lost its internal bond — the cement paste that held the sand together is breaking down. Causes: age, water saturation with freeze-thaw cycling, or a mix that was too weak or badly cured from the start. Crumbling joints cannot seal out water, and they will only get worse. This wall needs repointing.

Receding mortar. The mortar has eroded back from the face of the brick, so the joints sit in a shallow valley between the brick faces. Run your finger along

the joint — if your fingertip drops into a channel between the bricks, the mortar is receding. Receding joints are a classic sign of weather erosion: decades of rain washing the surface away grain by grain, or sandblasting by wind-driven grit. Recessed joints collect water instead of shedding it, which accelerates the damage. Repointing restores the joint to the face of the brick where it belongs.

Cracked mortar. Cracks in mortar joints come in two very different kinds, and telling them apart matters. Hairline cracks that follow the joint — running along the mortar line, sometimes stepping down through the joints in a stair-step pattern — are usually movement cracks. The wall moved, the mortar cracked to absorb it, and the mortar did its job. A few hairline joint cracks on a Texas house sitting on clay soil are normal. But wide cracks, cracks that run through bricks (not just the joints), cracks that are growing, or stair-step cracks that are opening up — those signal structural movement that repointing alone will not fix. The rule of thumb: if you can fit a dime in the crack, or if the crack goes through brick faces, get the structure evaluated before anyone talks about mortar.

Powdery mortar. Rub your thumb firmly across a joint. If it leaves a sandy residue on your thumb and the joint surface feels soft and chalky, the mortar is powdering. This means the surface has lost its cement binder — from age, from water leaching, or from a mix that was too lean (too much sand, not enough cement) or that dried too fast during curing. Powdery mortar is a late-stage symptom. The joints are not far from crumbling.

The screwdriver test. This is the field test I use on every inspection, and you can do it yourself. Take a standard flat-head screwdriver and, with moderate hand pressure, try to scratch the mortar in a joint — not the brick, the mortar. If the screwdriver digs in easily and mortar crumbles out, the mortar is soft: high lime content, low strength, probably Type O or an old lime mortar. If it scratches with effort and leaves a mark, you are in the middle range — probably Type N. If the screwdriver barely marks it and you have to lean in hard, it is a hard Portland-heavy mortar — Type S or harder. Do this test in several spots: a sheltered spot, an exposed spot, up high if you can reach safely. Soft mortar everywhere suggests the original lime-rich mix. Hard

mortar in patches suggests someone repointed sections with the wrong mix — and that is exactly the mismatch that destroys brick, as Chapter 3 described.

Hard vs. soft mortar — what it tells you. Soft mortar throughout the wall, on an older home, is usually the original mortar doing what it was designed to do: it is sacrificial, it is aging, and it is ready for repointing with a matching soft mix. Soft mortar on a newer home can mean a bad batch, poor curing, or water damage. Hard mortar on an older home is a red flag — it usually means a previous repointing with too-strong a mix, and you should look closely at the brick faces for spalling, because the hard mortar may already be damaging the soft brick. Hard mortar on a newer home is usually just the original Type N or S, which is fine as long as the brick is a matching modern hard brick.

Efflorescence — the white powder. Sometimes you will see a white, powdery deposit on the brick face or weeping out of the joints. That is efflorescence: mineral salts carried out of the masonry by water and left behind when the water evaporates. Efflorescence itself is usually harmless and can be brushed off, but it is a messenger — it tells you water is moving through the wall. Find where the water is coming from. Do not just clean the salt and call it done.

What is cosmetic vs. what is real. A little surface weathering on the most exposed joints, a few hairline movement cracks, some fading of color — cosmetic, worth watching, repoint on a normal maintenance schedule. Crumbling or powdery joints you can dig out with a screwdriver, receding joints that hold water, missing mortar with visible gaps, brick faces spalling while joints look new, wide or growing cracks — real problems, and the clock is ticking. Water does not wait for a convenient time.

Mapping Your Wall

Diagnosis gets much more useful when you write it down. I recommend every homeowner make a simple wall map — nothing fancy, just a sketch of each side of the house with notes on what you found. Draw four rectangles representing the four elevations, mark the doors and windows roughly, and then mark every problem area: "receding joints, upper left," "stair-step crack, 3 ft long, by the garage," "efflorescence under the bathroom window," "soft mortar, screwdriver digs in easily, north wall." Date it.

This map does three things for you. First, it turns a vague worry ("the brick looks bad on that side") into specific, locatable facts — which is what a mason needs to give you a real quote instead of a guess. Second, it gives you a baseline. Do the walk again next spring, update the map, and compare: what is new, what has grown, what has stayed the same? A crack that has not changed in two years is a very different situation from one that doubled in length. Without the baseline, you are relying on memory, and memory is generous about the past. Third, it reveals patterns you cannot see from any single spot. When you step back and look at the whole map, the water story often draws itself: every problem clustered under the same gutter, or every soft spot along the bottom course where the grading slopes wrong.

Keep the maps year to year — a folder with one page per year. When you eventually call a mason, hand him the folder. You have just given him something most homeowners never provide: a history of the wall. He will read it the way a doctor reads a chart, and his diagnosis will be better for it. And if you ever sell the house, that folder is a quiet, powerful signal to a buyer that the place was cared for by someone who paid attention.

For example, imagine a homeowner who notices a small patch of crumbling mortar near the ground on the north side. On its own, it looks minor. But the wall map shows that last year the same spot was fine, that the weep holes above it are buried under two inches of new mulch, and that the sprinkler head three feet away was adjusted in the spring. Now the "minor" patch has a story — trapped moisture, daily wetting, no drainage — and the fix is obvious: uncover the weep holes, redirect the sprinkler, regrade the mulch, then repoint the patch. The map turned a symptom into a diagnosis.

You do not need expertise to make the map. You need a pencil, ten minutes, and the willingness to look closely. The expertise comes later, when you — or your mason — read what the map is saying.

Do this walk once a year — spring is ideal in Texas, after the winter freezes and before the summer heat — and you will catch mortar problems when they are small and cheap instead of when they are large and expensive. In the next chapter, we will talk about the problem that bothers homeowners the most even though it is not structural at all: color.

Chapter 6: The Color Problem

Of everything in this book, the color problem is the one homeowners feel most personally. The mortar can be structurally perfect and still make a homeowner unhappy — because a bad color match jumps out like a wrong note in a song, and you see it every time you pull into the driveway.

Here is why mismatched mortar is so visually jarring. The human eye does not read a brick wall joint by joint. It reads the whole wall at once — a broad field of color and texture. The brick provides the dominant color, but the mortar joints, which make up roughly fifteen to twenty percent of the wall's surface, provide the background tone that the eye uses to judge the whole. When the mortar color is consistent, the eye glides across the wall and sees "brick house." When one section of mortar is a different color — grayer, whiter, yellower, pinker — the eye stops. It cannot help it. The mismatch breaks the field, and once you have seen it, you cannot unsee it.

This is also why a single patched joint can look worse than a whole wall of slightly faded mortar. A uniform wall, even if the color is not perfect, reads as one surface. A patch reads as a repair. The eye is drawn to contrast, not to absolute color. A repointed section that is "close" in the shade but visibly different from the surrounding wall will bother you more than the old, weathered mortar ever did — because the old mortar was at least consistent with itself.

And the color problem is not just about vanity. It affects perceived value. A homebuyer walking up to a house with patchy, mismatched mortar joints reads it — consciously or not — as a house with problems. "If they patched the brick like that, what else did they patch?" It is unfair, because a color mismatch says nothing about the quality of the work underneath, but first impressions do not deal in fairness. Real estate agents know this: curb appeal is the first filter, and the wall is the biggest surface the buyer sees. A wall with invisible, well-matched repointing reads as a well-kept home. A wall with zebra stripes of mismatched mortar reads as a project.

So why is matching mortar color so hard? Because mortar color is not one thing — it is the sum of at least five variables. The sand provides the base tone: white sand makes light mortar, yellow or tan sand makes warm mortar, gray

sand makes cool mortar — and sands vary by quarry, by region, and by batch. The cement contributes its own gray; different cement brands and types have different grays. Lime lightens and softens the tone. Mineral pigments, if the original mason used them, shift the color deliberately — and pigments fade over decades, so the color you see today is not the color that went into the wall. And time itself changes everything: mortar lightens as it cures and weathers, pollution and dust darken it, and sun bleaches the exposed face while the sheltered joints stay darker.

That last point is the trap that catches every amateur: **wet mortar is not the color of dry mortar**. Fresh mortar looks dark — much darker than it will be when cured. A homeowner mixes a batch, holds it up to the wall, and thinks "too dark." So they lighten it. Then it dries three shades lighter than the wall and the patch glows. The professional rule is the opposite of instinct: match to the cured, dry color, and expect the wet mix to look wrong until it dries. I will cover the full matching process — samples, test panels, curing, daylight comparison — in the next chapter. For now, just know that color matching is a discipline, not a guess, and it is one of the clearest lines between a mason and a handyman.

There is also the question of how much of the wall to repoint, and color is part of that decision. If the failing joints are scattered across a whole elevation, repointing the entire elevation — not just the worst spots — gives you a uniform color field and a uniform age, and the wall looks original instead of patched. Spot repointing has its place for isolated damage, but on a wall where the mortar is failing generally, the patchwork approach guarantees the zebra-stripe look. When I quote a job, I am always thinking about where the eye will stop — and I would rather do a whole wall once than do patches that the homeowner stares at for twenty years.

The Fading Factor: Why Old Mortar Looks the Way It Does

To match old mortar, it helps to understand what decades have done to it — because you are not matching the mortar as it was mixed. You are matching it as it has become. Four slow forces reshape mortar color over the years, and each one pushes in a different direction.

Weathering and leaching. Rain does not just fall on mortar; it moves through it. Each wetting cycle dissolves a tiny amount of the lime and cement

compounds near the surface and carries them away or redeposits them. Over decades, this leaches the surface, lightening it and softening its tone. The joints on the weather side of the house — the side that takes the driving rain — lighten and fade faster than the sheltered sides. That is why the same original mortar can look like two different colors on the north and south walls of one house. Neither is the "original" color anymore. Both are weathered versions of it.

Sun bleaching. Ultraviolet light breaks down mineral pigments slowly but relentlessly. A mortar that was mixed with a warm buff pigment in 1985 may read as a pale, washed-out tan today — not because the sand changed, but because thirty-plus Texas summers bleached the pigment out of the top fraction of an inch. The fading is deepest on the south and west exposures. When you take a sample from a sheltered joint — under an eave, behind a shutter — you will often find a noticeably richer color than the exposed face. That sheltered color is closer to the original. But remember the rule from Chapter 7: match the face, not the interior. The wall shows its weathered face to the world, and that is what the new work has to blend with.

Pollution and dust. In metro areas, airborne dust, pollen, and pollution settle into the porous surface of mortar and darken it over time. This is most visible near busy roads and in the joints closest to the ground, where splash-back adds a permanent grime line. Pressure washing can strip some of this away — which is why a wall sometimes looks two shades lighter right after a wash, to the homeowner's surprise. A good color match accounts for the grime that belongs to the wall's current age; a test panel compared against a freshly washed section will mislead you into mixing too light.

Biological growth. On the damp, shaded sides of Texas homes — typically the north elevation — you will often find a greenish or dark film on the mortar: algae, mildew, sometimes lichen. It is usually harmless to the mortar itself, and it cleans off, but it shifts the apparent color significantly. Do not match to the green. Clean a test area first, let it dry fully, and match to the clean, dry, weathered mortar underneath.

Add these four together and you see the real challenge: the "color" of a forty-year-old wall is not one color. It is a range — lighter on the weather side, richer under the eaves, darker near the ground, greener on the north. A single

perfect match is impossible because there is no single color to match. The professional's answer is to match the middle of the range — the tone that the largest area of the wall shows — and to repoint whole elevations rather than patches, so the new work weathers into the wall as one consistent field. Time did the fading; time will do the blending. Your job is to give it a starting point close enough that the eye accepts it on day one.

The color problem has no shortcut. It is solved by sampling, testing, patience, and daylight — which is exactly what the next chapter is about.

Chapter 7: How a Real Mortar Match Is Done

Color matching is where repointing becomes a craft. Anyone can mix a bag of gray mortar and fill a joint. Making the new mortar disappear into a forty-year-old wall — that takes a process. This chapter is that process, step by step, the way it is actually done in the field.

Step one: take a sample. You cannot match what you have not studied. A small piece of the existing mortar is removed from the wall — from a sheltered spot where the color is truest, and from an exposed spot so you can see the range. The sample is examined for its components: what color is the sand? How coarse or fine is it? Are there visible aggregate particles — little pebbles or shells in the sand that give it character? Is there evidence of pigment? The sample also tells you the hardness, which confirms the mortar type (Chapter 5's screwdriver test, done properly). Everything downstream depends on this sample. A match made without one is a guess.

Step two: sand. Sand is the single biggest driver of mortar color — bigger than the cement, bigger than the lime. Mortar is roughly three parts sand to one part binder, so the sand's color dominates. White sand gives a light, bright mortar. Yellow or buff sand gives a warm tone. Gray or brown sand gives a darker, cooler tone. And it is not just color: the grain size and shape matter. Coarse sand gives a rough, open texture that catches light differently than fine sand. Rounded river sand looks different from sharp crushed sand. The first job in matching is finding a sand that looks like the original — sometimes that means blending two sands. In Texas, our local sands run toward the warm and tan, which is why so much Texas mortar has that warm buff tone — but every wall is its own case, and the sample decides.

Step three: cement and lime proportions. The binder ratio sets both the strength and the tone. More Portland cement darkens the mix toward gray and increases strength; more lime lightens it, softens the tone, and increases flexibility. Remember the rule from Chapter 2: match the type — the new mortar should be the same strength family as the old, or one step softer, never harder. So the binder ratio is doing double duty: it has to hit the color and the strength at the same time. This is why field mixing matters — a mason who mixes on site can adjust the lime-to-cement ratio to tune both. A bagged mix gives you whatever the factory decided.

Step four: mineral pigments. If the original mortar was pigmented — and many were, especially on homes where the architect wanted a specific look — the match requires pigment too. Mortar pigments are mineral-based (iron oxides and similar), and they are added in small, carefully measured amounts. A little goes a long way, and the relationship is not linear: doubling the pigment does not double the color change. Pigment matching is done by trial, in small test batches, and it is the fussiest part of the process. Note: pigments fade over decades of sun exposure, so you are matching the faded color of today, not the original color of 1985. Match the wall as it is.

Step five: test panels. This is the step amateurs skip and professionals never do. You do not match mortar in a bucket — you match it on a panel. A test panel is a small board or a section of spare brick on which you lay joints of each candidate mix, tooled the same way the wall will be tooled. You make several candidates — the best guess, one a touch lighter, one a touch darker, maybe one with a different sand. Then you let them cure.

Step six: let it cure, and compare in daylight. Mortar changes color dramatically as it dries — it can take several days to reach its final cured color, and the change is always toward lighter. A panel judged after two hours will mislead you. The professional waits, then compares the cured panels against the wall in natural daylight — not indoor light, not a flashlight, not at dusk. Daylight, midday if possible, with the panel held right against the existing joints. And you compare at arm's length and from across the yard, because the wall will be seen both ways. The winner is the panel that disappears — the one your eye slides past.

A few hard-won notes from the field. First, **match the weathered color, not a fresh chip**. If you knock a chunk of mortar out of a sheltered joint and match to its interior, you will match a color the wall has not shown in thirty years. Match the face — the weathered, sun-aged surface — because that is what the wall looks like. Second, **tooling changes color**. A joint struck with a concave jointer compacts the surface and reads slightly darker than the same mix left rough. Your test panel must be tooled exactly the way the wall will be tooled. Third, **the whole wall vs. the patch**. Even a perfect match will read slightly different for the first weeks because new mortar has not weathered. Tell the homeowner this up front: a good match looks a touch new for a season and then settles in. Anyone who promises an invisible match on day one is promising something time has to finish.

When the Original Cannot Be Matched Exactly

Sometimes, despite the full process, an exact match is not achievable. The original sand came from a quarry that closed in 1998. The pigment was a blend nobody wrote down. The wall has weathered into a range of tones no single mix can cover. This is not failure — it is the normal reality of working on old walls, and there are professional answers for it.

Blend, do not chase. When no single mix nails the color, the right move is usually a blend: a mix that sits in the middle of the wall's range rather than chasing one extreme. A mix that is slightly off from every part of the wall reads as uniform; a mix that matches one patch perfectly and clashes with the rest reads as a repair. Uniformity beats accuracy. The eye forgives a consistent near-match. It never forgives a patchwork.

Repoint the whole elevation. This is the single most effective solution to an unmatchable color. If the failing joints are scattered across a wall, repointing the entire elevation in the new blended mix gives you one consistent field of mortar — same age, same color, same tooling. Yes, it means repointing some joints that were still sound. But the alternative — patches of new mortar scattered across old — guarantees the zebra-stripe look for decades. When I explain this to homeowners, I frame it as the difference between touching up paint on one wall of a room and repainting the whole room. The whole room always looks better.

Use the transition points. Walls have natural visual breaks: corners, downspouts, windows, doors, changes in plane. Color transitions placed at these breaks are nearly invisible, because the eye already expects a change there. If only one elevation needs repointing, stop the new work at the corner — do not wrap it six feet around the side "while you're at it," because that creates a visible transition mid-wall where none should exist. Masons think in elevations for exactly this reason.

Tell the homeowner the truth. The most important tool in the unmatched-color situation is honesty, delivered before the work starts. "I can get this to a consistent blend that will look like one wall, and within a season of weathering it will settle in. It will not be invisible on day one." Homeowners accept this readily when they hear it up front. What they do not accept is being promised invisible and getting visible. Set the expectation, put it in the scope, and then deliver the best blend the process can produce.

The test panel is the contract. When the match is a judgment call, the approved test panel becomes the standard: this panel, cured, in daylight, is what the wall will look like. Both the mason and the homeowner sign off on it — literally or figuratively — before full work begins. If the finished wall matches the panel, the job met its standard. This protects everyone. Without it, "the color looks off" is an argument. With it, it is a comparison.

An exact match is the goal, but a professional blend, applied to a whole elevation, stopping at natural breaks, with honest expectations set up front — that is a job any homeowner can be proud of for decades.

This process — sample, sand, binder, pigment, panels, cure, daylight — is what separates a mortar job that looks original from one that looks repaired. It takes time, and time is part of what you are paying for when you hire it done right. In the next chapter, we will walk through the repointing job itself, from assessment to cleanup.

Chapter 8: Repointing, Step by Step

This chapter walks through a professional repointing job from start to finish. If you are a homeowner, it tells you what to expect and what to watch for. If you

are considering doing it yourself, it tells you what you are signing up for — read it alongside Chapter 10 before you decide.

1. Assessment. Every job starts with the wall, not the tools. The mason walks the wall the way Chapter 5 describes: identifying which joints are failing and which are sound, testing hardness, noting the mortar type, checking for structural cracks that need attention first, and looking at the water story — gutters, flashing, grading, weep holes. The assessment also covers access: how high is the work, what is under it (landscaping, concrete, a pool deck?), and how much protection the property needs. A good assessment ends with a clear scope: which walls, how many square feet, what mortar type, what color target. Vague scope is where disputes are born. Get it specific.

2. Removing the old mortar — raking and grinding. The deteriorated mortar has to come out to a proper depth before new mortar goes in. The rule of thumb: remove to a depth of about two to two-and-a-half times the width of the joint, or until you reach sound, hard mortar — whichever is deeper. For a standard 3/8-inch joint, that means roughly 3/4 inch to 1 inch deep. The new mortar needs that depth to bond properly; a thin skim over old crumbling mortar will pop off within a couple of years.

There are two ways to remove it. Hand raking — with a joint raker, a chisel, or a specialized raking tool — is slow and controlled. It is the right method for soft brick, historic masonry, and anywhere the brick faces are fragile, because it does not risk cutting into the brick. Grinding — with an angle grinder fitted with a mortar-rake blade or tuckpointing blade — is fast and is the standard method on modern hard brick with hard mortar. The danger of grinding is the operator: a grinder in careless hands cuts into the brick faces, widening the joint and scarring the wall. On soft historic brick, grinding is usually the wrong choice entirely. The method must match the masonry — another reason the assessment comes first.

3. Dust control. Grinding mortar generates an enormous amount of fine silica dust, and this step is not optional — it is a health and safety matter. Professional crews use grinders with dust-extraction shrouds connected to HEPA vacuums, and the workers wear respirators rated for silica. The work area gets contained as much as practical: windows closed, HVAC intakes protected, neighboring areas shielded. Texas wind will carry dust across a

yard in seconds, so wind direction matters. If you hire this job, ask the contractor about dust control before the work starts. If he looks blank, that tells you something. If you do it yourself, a proper respirator is non-negotiable — paper dust masks do not cut it for silica.

4. Mixing small batches. Repointing mortar is mixed in small batches — enough for an hour or two of work, not a whole day. Mortar has a working life: once mixed, it stiffens as the cement begins to hydrate, and adding water to loosen it back up (retempering) weakens the final product. Small batches mean every joint gets fresh, full-strength mortar. The mix itself follows the match established in Chapter 7: the right sand, the right cement-to-lime ratio for the mortar type, pigment if needed, mixed to a workable consistency — firm enough to hold its shape on the trowel, wet enough to bond. In Texas summer heat, batches get even smaller, because heat accelerates the set.

5. Filling the joints. The joints are dampened before the new mortar goes in — not soaked, just dampened, so the dry old masonry does not suck the water out of the fresh mortar before it can cure (a dry substrate steals the mix water and leaves a weak, powdery bond). Then the mortar is packed in firmly, in layers if the joint is deep, pressed hard against the back and sides of the joint with a pointing trowel or a joint filler. "Packed" is the operative word. Mortar that is dabbed in loosely leaves voids, and voids collect water. Every joint should be filled full and compacted. This is the most physically demanding part of the job and the part where craftsmanship shows: full joints, no voids, no smears on the brick faces.

6. Tooling the profile. Once the mortar has stiffened slightly — thumbprint-hard, firm enough to hold a shape — the joints are tooled to their final profile. The profile is the shape of the joint's face, and it matters for both looks and water-shedding. The **concave** joint — struck with a curved jointer to make a smooth, rounded recess — is the most common profile on residential brick in America, and for good reason: it compacts the mortar surface, sheds water well, and looks clean. Other profiles: the **V-joint** (a sharp V, decorative, good water-shedding), the **weathered joint** (sloped to shed water outward — excellent on sills), the **flush joint** (flat with the brick face — simple, but weathers faster), the **raked joint** (recessed square — shadow lines look sharp but the ledge collects water), and the **struck joint** (recessed at the top, flush at

the bottom — sheds water, traditional on some styles). Whatever the original wall has, the repointing should match it. Tooling must happen in the window when the mortar is firm but workable — too wet and it smears, too dry and it will not take the shape.

7. Curing and cleanup. Fresh mortar needs to cure slowly. In Texas heat, that means keeping it damp — a fine mist of water, sometimes several times a day for a few days — so the cement hydrates fully instead of drying out. Mortar that dries too fast ends up weak and chalky no matter how good the mix was. Direct hot sun on fresh joints is the enemy; experienced crews work the shaded side in the afternoon or tent the wall. Cleanup happens as the work progresses: mortar smears on brick faces are brushed off while still workable, and a final gentle cleaning — brushing, sometimes a light wash — leaves the wall clean without damaging the new joints. Aggressive pressure washing on fresh mortar is a good way to ruin a week's work; the joints need weeks to reach full strength.

What Can Go Wrong Mid-Job

Even well-planned repointing jobs hit surprises. Knowing the common ones — and what a professional does about them — helps you judge the crew on your wall.

Rain. Fresh mortar and rain are enemies. A sudden Texas thunderstorm on day two of a job can wash the face off green joints, leaving them pitted and weak. Professionals watch the sky the way farmers do: they do not start a wall they cannot get tooled before weather arrives, they keep coverings ready, and if rain catches fresh work, they cover it immediately. If joints do get washed, the honest fix is to cut them out and redo them — not to skim over the damage. Ask your mason what his rain plan is. In Texas, from March through October, there is always a rain plan.

Extreme heat. The flip side of rain is the August afternoon: 100-plus degrees, sun hammering the wall, fresh mortar drying in minutes instead of hours. Mortar that dries too fast never fully hydrates — it ends up weak, chalky, and prone to cracking. The professional answers: work the shaded elevations in the afternoon, mix smaller batches, dampen the wall more aggressively, mist the fresh joints, and sometimes tent the work area. If a crew is laying mortar on a sun-baked west wall at 3 PM in August with no misting and no shade, the

joints will look fine on Friday and start dusting by fall. Heat management is part of the craft.

Hidden damage. Opening up a wall sometimes reveals what the surface hid: brick that is far more deteriorated behind the joint face than anyone expected, previous repairs buried under the surface, flashing that has completely failed, or even structural issues like a cracked lintel. A good mason stops, shows you, and explains the options before proceeding — because the scope just changed. This is not upselling; it is the wall telling the truth late. Build a small contingency into your budget and your expectations for any repointing job on an older home. The wall is fifty years old. It is allowed to have secrets.

Color drift across batches. On a multi-day job, the color can drift: Monday's sand delivery is slightly different from Wednesday's, the pigment gets measured a touch heavy on day three, the afternoon batches run darker because the mix sat longer. Professionals fight this with discipline — same sand pile, measured pigment (weighed, not eyeballed), consistent batch sizes, and a reference panel kept on site for comparison all week. If you walk out on day three and the new joints look different from day one's, say something immediately. Caught early, it is a mix correction. Caught at the end, it is a redo.

The homeowner's role mid-job. Stay available, stay out of the way. The crew needs you reachable for the occasional decision — a hidden-damage find, a color check — but hovering slows the work and tempts well-meaning interference. ("Could you just fill that one extra joint while you're up there?" is how scope creep and color mismatches are born.) Do a walkthrough at the natural breakpoints: after removal, after the test panel approval, and at final cleanup. Those three check-ins catch nearly every problem while it is still cheap to fix.

That is the job, start to finish. Assessment, removal, dust control, mixing, filling, tooling, curing. Seven steps, each one load-bearing — skip or shortchange any of them and the wall will know. In the next chapter, we zoom out from the joint to the whole wall, because mortar does not work alone.

Chapter 9: Mortar, Water, and the Whole Wall

Here is the most expensive lesson in this book, and I will state it up front: **fixing mortar without fixing water is temporary.** You can repoint a wall perfectly — right type, perfect color match, beautiful tooling — and if water is still getting behind that wall, the new mortar will fail early. Mortar is part of a water-management system, not the whole system. This chapter is about the rest of the system.

Start with how a brick veneer wall actually works. The brick you see is not the structure of the house. Behind it is a wood-framed wall (on most Texas homes) with sheathing, and between the brick and the sheathing is an air gap — typically about an inch. That gap is intentional. It is a drainage plane. Water that gets through the brick and mortar — and some always does, because masonry is not waterproof — runs down the back of the brick, through that gap, and out at the bottom. The wall is designed to get wet and dry out. What it is not designed to do is stay wet.

Four components keep that system working, and mortar is only one of them.

Flashing. Flashing is thin metal (or modern membrane material) installed at key points to direct water out of the wall: above windows and doors, at the base of the wall where it meets the foundation, anywhere a roof meets a brick wall. Flashing catches the water running down inside the cavity and kicks it out through the weep holes. When flashing is missing, corroded, or installed wrong, water pours into the cavity and soaks the back of the mortar and the sheathing. I have opened walls where the mortar looked fine from outside but was mush on the back side because the flashing above a window had failed years ago. No amount of repointing fixes that — the flashing has to be repaired.

Weep holes. Those small gaps you see in the mortar at the bottom course of brick, above windows, and above doors — usually every couple of feet — are weep holes, and they are the drains of the wall system. Water that reaches the bottom of the cavity exits through them. They must stay open. Homeowners caulk them shut thinking they are defects. Landscapers bury them under mulch. Painters fill them. Every one of those is a mistake: a wall that cannot drain is a wall that stays wet, and a wall that stays wet destroys its mortar

from the inside. If your weep holes are blocked, open them before you spend a dollar on repointing.

Gutters. Gutters are not part of the wall, but they might as well be. A gutter that overflows, a downspout that dumps water at the base of the wall, a missing gutter on a roof slope that sheds directly onto brick — all of these soak the wall far beyond what it was designed to handle. The most common water story I see in Texas: a clogged gutter overflows in a thunderstorm, water sheets down the brick for an hour, and it does that a dozen times a year. The mortar at the top of the wall never fully dries between soakings. It softens, it erodes, and eventually it fails — and the homeowner thinks the mortar was bad, when the gutter was the problem. Clean gutters, extend downspouts away from the foundation, and make sure no roof valley dumps directly onto a brick wall.

Grading. The ground around your house should slope away from the foundation — about six inches of fall in the first ten feet is the standard guidance. When grading slopes toward the house, water pools against the base of the brick, wicks up into the lowest courses through capillary action, and keeps the bottom of the wall permanently damp. The mortar in the bottom two or three courses fails first. Flower beds piled high against the brick are a classic version of this: the mulch holds moisture against the wall, the weep holes get buried, and the bottom of the wall rots from the outside in. Keep soil and mulch below the weep holes and sloping away.

Now, how do these connect to a repointing decision? Before any repointing job, the water story gets read: where is water coming from, where is it going, and what is broken in the path? The pattern of mortar damage is the map. Damage concentrated at the top of the wall, under the eaves — look at the gutters and the roof-wall flashing. Damage in horizontal bands above windows and doors — flashing and weep holes. Damage at the bottom courses — grading and drainage. Damage on one exposure only — wind-driven rain overwhelming that side, or a sprinkler hitting the wall daily (a shockingly common one: a mis-aimed sprinkler head soaking the same six feet of brick every morning will destroy mortar faster than almost anything).

The sprinkler deserves its own warning for Texas homeowners, because our lawns demand so much water. Walk your sprinkler zones and watch where

the water actually lands. If any head is hitting the brick — even a little, even just the spray drifting — adjust it. Daily wetting with no drying time is a mortar killer. I have repointed walls that failed in under ten years because of one sprinkler head. Fix the head and the next repointing lasts thirty.

Here is the sequence that works: fix the water first, then repoint. Unclog the gutters, extend the downspouts, regrade the bed, open the weep holes, repair the flashing — then bring in the mason. Do it in that order and the new mortar goes into a wall that can stay dry, which is the only kind of wall where mortar lasts. Do it backwards and you are paying for the same job twice.

Repointing is weatherproofing, yes — fresh, full, properly tooled joints are the wall's first defense against rain. But they are the first defense, not the only one. The whole wall has to work together: mortar, flashing, weep holes, gutters, grading. When all five are doing their jobs, a brick wall in Texas will stand for generations. When one fails, the mortar is usually where the failure shows up first — which is why the mortar gets the blame and the gutter gets away with it. ### The Texas Storm Test

If you want to know how your wall's water system is really doing, watch it during a hard Texas thunderstorm — the kind that drops two inches in an hour with wind driving it sideways. That storm is the most honest inspector your house will ever have. Here is what to watch for, safely, from inside or under cover.

Where does water sheet down the brick? In a driving rain, watch each elevation. Water should hit the brick and shed downward in a fairly even film. If you see concentrated streams pouring off the eave in one spot, the gutter is overflowing there — note the location. If water is cascading off the roof directly onto a brick wall with no gutter, that wall is taking a beating no masonry system was designed for. If you see water visibly entering around a window or door — streaking out from under the sill, or dampness spreading on the interior wall below — the flashing or the seal at that opening has failed.

What happens at the base? After the storm passes, walk the perimeter. Look at the bottom two courses of brick. Are they soaked while the rest of the wall is drying? That is water pooling at the base — grading, drainage, or downspouts discharging too close. Look at the weep holes: is water actually draining out of

them? In a healthy wall, you will see dampness and dripping at the weeps after a hard rain — that is the drainage plane doing its job. Bone-dry weep holes after a downpour can mean they are blocked, or that water is finding another path — neither is good.

The 48-hour rule. A healthy brick wall dries. After a storm, the brick and mortar should visibly dry out within a day or two — faster on the sun sides, slower on the north. If sections of wall are still dark and damp after 48 hours of dry weather, something is keeping them wet: a leak above, trapped moisture behind, a sprinkler adding to the load, or mortar so deteriorated it is holding water like a sponge. Persistent dampness is the single best predictor of where the next mortar failure will appear. Mark those spots on your wall map.

Hail. Texas hail does not just dent cars — it pits and chips mortar joints, especially on chimneys and exposed upper walls. After a hailstorm, look at the most exposed joints with binoculars or from a safe vantage: fresh chips, pocks, and spalls in the mortar face are hail damage. It is cosmetic at first, but each pit is a little cup that holds water, and the damage accumulates storm after storm. If your area takes frequent hail, the chimney and the upper gable walls deserve a closer look every couple of years, not just once a decade.

Make it a habit. You do not need to do a full storm inspection every time it rains. But two or three times a year — during the spring storm season especially — take five minutes during or after a hard rain to watch your walls work. You will learn your house's water story the way no inspection report can teach it: where it sheds, where it pools, where it lingers. And when you eventually talk to a mason about repointing, you will be able to tell him not just what the mortar looks like, but what the water does. That is the information that turns a good repair into a lasting one.

Read the whole wall, fix the water, then fix the joints. That is how you do it once.

Chapter 10: Should You DIY?

Every year, plenty of capable homeowners ask me whether they can repoint their own brick. I respect the question — there is a lot of satisfaction in working on your own house, and mortar work looks straightforward from the

driveway. So here is an honest answer about what you can reasonably touch yourself and what really needs a mason.

What a homeowner can reasonably handle: small cosmetic areas. If you have a few isolated joints that have receded or cracked — a small patch on a garden wall, a few joints around a window, a short section of a low wall you can reach comfortably from the ground — a careful homeowner can do a decent job. The keys: use the right mortar type (Type N for most modern brick — and if the house is old or the brick is soft, stop and get advice before you touch it), remove the failed mortar to proper depth, dampen the joint, pack the new mortar in full, tool it to match the existing profile, and keep it damp while it cures. Work small, work patiently, and do a test patch somewhere inconspicuous first. For a small area, the stakes are low and the learning curve is manageable.

What needs a mason: large areas. Once you are talking about whole walls, whole elevations, or a full house, the job changes character. It is not just more of the same — it is scaffolding or lift work, dust control at scale, mixing consistent batches across days of work, and maintaining a uniform color and tooling profile across hundreds of square feet. Professionals do this every day; the speed and consistency come from repetition. A homeowner doing a whole house in weekends will end up with visible batch-to-batch color shifts, inconsistent joint profiles, and a job that takes months. The wall will look like a patchwork. Large areas are a mason's job.

Structural walls. If the brick is structural — a load-bearing wall, not just veneer — the mortar is doing structural work, and mistakes have structural consequences. Most Texas residential brick is veneer over wood framing, but older homes, garden walls, and some commercial-style construction have structural masonry. If you are not sure which you have, that uncertainty alone is reason to call a mason. Removing too much mortar at once from a structural wall can destabilize it; professionals remove in sections and know the limits.

Historic brick. Old, soft brick with lime mortar is the highest-stakes repointing there is. The margin for error is thin: the wrong mortar type damages the brick permanently, grinding scars the faces, and the color matching on aged mortar is genuinely difficult. I have spent a good part of my career fixing DIY and handyman repointing on historic homes where the

repair caused more damage than the original deterioration. If your house is pre-1960s, or the screwdriver test shows soft mortar, get a mason who understands historic masonry. This is not the place to learn.

Color matching. As Chapter 7 showed, a real color match is a multi-step process with test panels and cured comparisons. On a small, hidden patch, "close enough" is fine. On a visible wall, "close enough" is what you will stare at for twenty years. If the repair will be seen from the street or the patio, the color match is worth hiring. This is one of the clearest value-adds of an experienced mason: the eye for the match.

The cost of getting it wrong. Let me be direct about what bad repointing costs, because "I'll just try it and fix it later" is more expensive than people think. The wrong mortar type on soft brick causes spalling that cannot be undone — you are now replacing bricks, if matching bricks can even be found, at many times the cost of the original repointing. Mortar smeared across brick faces and left to harden is extremely difficult to remove without damaging the brick. Joints that were not packed full fail in a few years, so you pay for the job twice. Ground joints that scarred the brick faces are permanent. And a wall that looks patched and amateurish costs you at the sale — buyers discount what they can see. A professional repointing job is not cheap, but it is almost always cheaper than fixing a bad one.

How to think about the decision. Ask yourself three questions. One: is the area small and out of the way? Two: is the brick modern and hard, with ordinary Type N mortar? Three: if the color is slightly off, will I care? If the answer to all three is yes, DIY is reasonable — take your time and follow the steps in Chapter 8. If any answer is no — large area, old or soft brick, visible location, structural wall, or you are unsure about any of it — call a mason. There is no shame in it. Knowing which jobs are yours and which jobs belong to a craftsman is the smartest kind of homeownership.

One more practical note: if you do hire it out, the steps in Chapter 8 are your quality checklist. You now know what proper removal depth looks like, what dust control should be happening, why small batches matter, and what curing requires. You do not need to do the work to judge the work. ### Tools and Materials: The Real Shopping List

If you have decided a small repair is within your reach, here is what the job actually requires — no more, no less. This list is also useful if you are hiring: it tells you what a prepared mason shows up with.

Removal tools. A joint raker or a carbide-tipped raking tool for hand removal; a cold chisel and a mason's hammer for stubborn spots. If you are grinding (modern hard brick only — never on soft historic brick), an angle grinder with a diamond mortar-rake blade, plus a dust-extraction shroud. For a small hand job, skip the grinder entirely — hand raking is slower but far more forgiving, and on a few square feet the time difference is trivial.

Safety gear. A respirator rated for silica dust (P100) — non-negotiable if you are grinding, strongly recommended even for hand raking old mortar. Safety glasses or goggles. Gloves — mortar is caustic when wet and will chew up bare hands over a day's work. Hearing protection with a grinder. If you are on a ladder, a stable extension ladder with a standoff so you are not leaning on fresh work.

Mixing. A mortar box or a wheelbarrow for hand mixing, a hoe, a bucket for water, and a margin trowel. A small electric mixer earns its keep on anything beyond a few square feet — hand-mixing more than a couple of batches is exhausting and inconsistent. Measure your materials: a bucket marked for sand, and a scale or measuring cup for pigment if you are tinting. Eyeballing proportions is how color drift and weak batches happen.

Application and tooling. A pointing trowel or a brick trowel for placing mortar, a joint filler or grout bag for deep joints if you prefer it, and a jointer — the curved barrel tool — sized to your joint width for striking the concave profile. A stiff brush for cleaning smears while the mortar is still workable, and a spray bottle or a fine-mist hose nozzle for dampening joints and curing.

Materials. The right mortar for your wall — for most modern brick, a Type N mix, either bagged or field-mixed from Portland cement, lime, and sand. Clean water. If you are tinting, mineral oxide pigment measured by weight. Plastic sheeting for rain cover and for protecting surfaces below the work. Painter's tape and drop cloths for windows and trim near the work area.

What not to buy. Do not buy a "high-strength" or "commercial" mix for a residential veneer repair. Do not buy pre-mixed "mortar repair" caulk tubes as a substitute for real repointing — they are sealants, not mortar; they look wrong, they do not bond the same way, and they fail. Do not buy acid-based masonry cleaner unless you know exactly what you are doing — used wrong, it burns the mortar and stains the brick.

Total cost for a small-job kit, if you own nothing: modest — a fraction of a professional's minimum charge. That is the genuine economic case for DIY on small areas. But notice what the list does not include: scaffolding, dust-extraction vacuums, a second pair of experienced hands, and the judgment that comes from ten thousand hours of joints. Those are what the professional's price buys, and on anything beyond a small patch, they are worth every penny.

An informed homeowner gets better work out of every contractor — because the contractor knows you are watching the right things.

Chapter 11: What Good Repointing Costs

Nobody likes talking about price before the scope is clear, but homeowners deserve an honest explanation of what drives the cost of repointing — so you can understand a quote, compare quotes fairly, and spot the ones that do not add up. I will not give you a price list here, because prices vary by market, by year, and by the specifics of your wall — any number I printed would be wrong by the time you read it. What I can give you is the anatomy of a quote: the five things that determine what the job costs.

1. Square footage. This is the starting point of every estimate. Repointing is priced by the area of wall being worked — the square footage of brick face, not the linear feet of joint, because joint density is roughly constant. More wall means more removal, more mortar, more labor, more time. But square footage alone does not set the price; a hundred square feet of easily reached garden wall and a hundred square feet thirty feet up a gable are very different jobs. Which brings us to the second driver.

2. Height and access. Work at height costs more, for reasons that are entirely legitimate. Above the first story, the crew needs scaffolding, a lift, or swing

staging — equipment that has to be rented, transported, set up, and taken down. Setup time is real labor. Safety requirements increase. Everything moves slower at height: the mortar, the tools, the debris, the workers. A two-story gable wall can easily cost double per square foot what a ground-level wall costs, and that is not markup — it is the physics of working in the air. Access matters at ground level too: a wall behind dense landscaping, over a pool deck, or with no place to stage materials takes longer and needs more protection.

3. Joint condition. Not all deteriorated mortar is equal. Mortar that is soft and crumbly rakes out quickly by hand. Mortar that is hard and well-bonded — even though it is failing at the surface — has to be ground out, which is slower, dustier, and harder on tools. Deeply receded joints take more new mortar to fill. Walls with a mix of conditions take judgment joint by joint. And walls that were previously repointed badly — with smears to clean, or with hard mortar that now has to come back out — cost more than walls being repointed for the first time. The condition assessment in Chapter 8's first step is where the mason reads all of this, and it is why a quote given without anyone looking at the wall is not a real quote.

4. Difficulty of the color match. A standard gray Type N match on a modern subdivision wall is straightforward — the materials are off the shelf and the target is forgiving. A custom match on aged, pigmented, or unusual mortar is a different job: sampling, sourcing special sands, pigment trials, test panels, cure time, daylight comparisons — the whole Chapter 7 process. That is skilled labor and calendar time before the first joint is even touched, and it belongs in the price. If a quote seems high, ask whether a custom color match is included; if a quote seems low, ask whether one is. The cheapest quote is often the one where the "match" is whatever came out of the bag.

5. Cleanup and protection of landscaping. A repointing job makes dust and debris, and a professional price includes dealing with it: protecting landscaping with coverings, protecting windows and adjacent surfaces, containing dust, hauling debris, and leaving the property clean. Mature landscaping under a wall takes real time to protect properly. If you have prized plantings along the foundation, say so up front — the crew will plan for it, and it is far cheaper than replacing a thirty-year-old shrub.

How to read a quote. A good repointing quote tells you the scope in specific terms: which walls, approximately how many square feet, what mortar type will be used, whether color matching is included and to what standard, how access will be handled, what protection is included, and what the cleanup covers. It should describe the removal method and depth. Vague quotes — "repoint brick, \$X" — are where misunderstandings live. Ask for the specifics. A mason who knows his trade will be glad to give them; specificity is the mark of someone who has thought the job through.

Red flags. Be cautious of any quote that is dramatically lower than the others — it usually means something is being skipped: the removal depth, the dust control, the color match, the curing, or the insurance. Be cautious of anyone who wants to repoint without looking at the wall. Be cautious of pressure — "this price is only good today" has no place in masonry. And be cautious of anyone who cannot tell you what mortar type he plans to use and why. That question from Chapter 2 is the single fastest way to separate a mason from a handyman with a grinder.

The value question. Repointing is not cheap, and I will not pretend otherwise. But price it against the alternatives: the cost of water damage from failed joints — rotted sheathing, damaged framing, interior repairs — which runs many times the cost of repointing. The cost of brick replacement after a wrong-mix repointing destroys the faces. The cost to your home's value of a wall that looks neglected. Good repointing, done once and done right, protects the wall for decades. It is maintenance in the truest sense: money spent now so you do not spend much more later. ### Timing and Scheduling: When to Book

Repointing is weather-dependent work, and in Texas the calendar matters. Understanding the seasons helps you plan — and helps you understand why a good mason might be booked out.

Spring is prime time. March through May is the best window for masonry work in North Texas: temperatures are moderate, the mortar cures at a civilized pace, rain is manageable, and crews can work full days. It is also when everyone wants work done, so the best masons book up. If you are planning a spring job, start getting quotes in late winter. The homeowner who

calls in April asking for work next week is choosing from whoever is available, not whoever is best.

Summer works, with adjustments. June through September is entirely workable — masons work through Texas summers every year — but heat management becomes part of the job, as Chapter 8 described: shaded-side scheduling, smaller batches, misting, early starts. A crew that starts at dawn and knocks off in the worst afternoon heat is not lazy; it is protecting your mortar. Expect summer jobs to account for heat in the schedule, and do not push a crew to lay mortar on a 105-degree west wall at 4 PM. The joints will pay for it.

Fall is the second window. October and November offer another stretch of good curing weather, often with drier conditions than spring. Many experienced homeowners aim for fall deliberately — the spring rush is over, schedules open up, and the work cures before winter.

Winter is limited. December through February in North Texas brings the freeze risk. Mortar that freezes before it cures is ruined — the ice crystals disrupt the cement hydration and the joint never reaches strength. Professionals can work winter days when temperatures cooperate (consistently above freezing, day and night, for several days), using heated enclosures or accelerators in some cases, but it is slower, riskier, and more expensive. Small emergency repairs happen in winter; planned repointing generally waits for spring.

Lead times and planning. Good masons are rarely available tomorrow. Two to six weeks of lead time in the busy seasons is normal; more for large jobs. Use the waiting time well: get the water issues fixed first (Chapter 9's sequence — water before mortar), clear access to the walls, protect or move anything fragile near the work area, and finalize the color match. A homeowner who has the gutters cleaned, the beds cut back, and the scope agreed before the crew arrives gets a faster, cleaner, cheaper job than one who figures it out as the crew stands around.

The emergency exception. Some mortar problems cannot wait for the ideal season: a wall with missing mortar letting water pour into the cavity, loose brick, or damage from a storm. In those cases, temporary protection —

covering, sealing the worst openings — holds the line until proper repointing can be scheduled. Do not let a contractor talk you into a full repointing in freezing weather because "we can make it work." Temporary now, proper in spring. The wall will wait; bad mortar will not forgive.

Get three quotes, read them with the checklist in this chapter, and hire the mason whose scope is the most specific — not the cheapest, the clearest.

Chapter 12: Caring for Mortar After the Work

The crew has packed up, the wall looks beautiful, the joints are full and the color has settled in. The job is done — but the maintenance is not. Mortar is not a one-time fix; it is a part of the house that needs the same kind of periodic attention as the roof, the paint, and the HVAC. This chapter is the long-term care plan: what to do, when to do it, and what to watch for year to year.

The annual walk. Once a year — spring is ideal in Texas, after the last freeze and before the heat sets in — walk the full perimeter of the house and look at the mortar the way Chapter 5 taught you. You are not doing a deep inspection; you are doing a familiarization pass. Look for what is new: a joint that was fine last year and is receding now, a crack that was hairline and has widened, efflorescence where there was none, a downspout that has shifted and is now dumping water on the wall. Ten minutes, once a year. This single habit catches almost every mortar problem while it is still small. Put it on the calendar next to the smoke-detector batteries.

Water management — forever. Chapter 9 was not a one-time lesson; it is an ongoing responsibility. Clean the gutters at least twice a year — in Texas, with our storms, quarterly is not excessive. Keep downspouts extended away from the house and check after big storms that they have not been knocked loose. Keep soil and mulch below the weep holes and sloping away from the foundation; beds have a way of building up over the years as mulch gets added, so check the level annually. Watch the sprinklers every season — heads get bumped by mowers, zones get adjusted, and a head that was fine in May can be soaking the brick by August. Water management is the highest-leverage maintenance a homeowner can do for masonry. It costs almost nothing and it adds years to every joint.

What to watch for year to year. In the first year after repointing, watch the new mortar as it weathers in: the color will settle over the first season, and that is normal. What is not normal in the first year: cracking beyond hairlines, mortar loosening in the joints, or efflorescence blooming heavily across the new work — any of those is worth a call back to the mason while the work is fresh. In years two through five, you are watching for the water story: any change in drainage, any new stain on the wall, any joint that starts to look different from its neighbors. Beyond five years, you are in the normal aging curve — gradual surface weathering on the exposed faces, which is the mortar doing its sacrificial job. When the weathering reaches the point where joints are visibly receding or the screwdriver test shows softening, it is time to plan the next repointing — on your schedule, not as an emergency.

What not to do. Do not pressure-wash brick walls aggressively. A gentle wash is fine; a zero-degree nozzle held close will blast the face off mortar joints and etch the brick. Do not caulk weep holes — ever, for any reason. Do not let anyone "seal" your brick with a waterproof coating without understanding what it does: most brick needs to breathe, and trapping moisture inside the wall with an impermeable sealer causes more damage than it prevents. (Breathable, penetrating water repellents formulated for masonry are a different product and have legitimate uses — but they are a considered choice, not a default, and they never substitute for fixing the water source.) Do not stack firewood, soil, or debris against the brick — anything that holds moisture against the wall shortens mortar life. And do not ignore the small stuff: a little receding this year is a lot of receding in five years.

Keep records. When you have repointing done, keep the paperwork: the scope, the mortar type used, the mix proportions if the mason provides them, the color match notes, the date. The next mason — or the next owner of the house — will bless you for it. Matching a previous repointing job is far easier when you know what went into it. A one-page record in the house file turns a future guess into a known quantity.

The mindset. Think of mortar the way you think about the roof: it is a wearing surface with a service life, and its life depends on exposure and care. Nobody expects a roof to last forever without attention, and nobody should expect that of mortar. The good news is that mortar maintenance is simple,

cheap, and mostly about water — the annual walk, the gutters, the grading, the sprinklers. Do those things and the repointing you paid for will give you its full life, which on a Texas home with the right mortar and good water management is measured in decades.

A Ten-Year Mortar Calendar

Here is the long view, distilled into a simple calendar. Tape it inside a cabinet door or keep it with your house file.

Every spring: Walk the perimeter. Update the wall map. Clean the gutters and check the downspouts. Check that soil and mulch are still below the weep holes and sloping away. Walk the sprinkler zones and confirm no head is hitting the brick. Look at the chimney and the upper walls with binoculars. Ten to thirty minutes, once a year — this is the habit that prevents emergencies.

Every fall: Clean the gutters again before the winter rains. Cut back any landscaping that has grown against the brick over the summer. Check the weep holes for blockages — a quick visual pass is enough. If you had any mortar work done during the year, note it in the house file with the date and the mortar type.

Year 1 after repointing: Watch the new work through its first full cycle of seasons. The color settles, the mortar cures to full strength over about a month, and the first winter tests the seal. Anything beyond hairline cracking, any loosening, or heavy efflorescence across the new joints — call the mason. Reputable work carries a workmanship warranty; use it if you need it.

Years 2–5: Normal life. The annual walk is the whole program, plus water management. This is the period where neglect starts to show: the gutter that has not been cleaned in three years, the bed that has built up six inches against the wall, the sprinkler head nobody adjusted. None of these are mortar problems yet. All of them become mortar problems eventually.

Years 5–10: The wall is entering the second half of the repointing's service life on the most exposed elevations. The annual walk gets a little more attentive: run the screwdriver test on the weather-side joints, compare them to the sheltered sides, and watch for the early signs from Chapter 5 — surface

softening, the beginnings of recession. When you start seeing consistent early wear on an elevation, begin planning the next repointing on your schedule: get quotes in the off-season, line up the water fixes first, and book the work for spring or fall. Planned maintenance always costs less than emergency repair.

Year 10 and beyond: On the most exposed walls — chimneys, south and west elevations, walls that take sprinkler overspray or gutter overflow — ten to fifteen years is a respectable service life for repointing in Texas conditions. Sheltered walls can go much longer. There is no shame in a wall that needs attention at year twelve; the mortar did its sacrificial job. What matters is that you saw it coming on the wall map two years earlier and scheduled it calmly, instead of discovering it during a storm.

The mindset, restated. Mortar maintenance is a rhythm, not a project: spring walk, fall gutters, watch the water, plan ahead. It asks almost nothing of you — a few hours a year — and it returns decades of wall life. The homeowners who spend the least on masonry over thirty years are not the ones who found the cheapest mason. They are the ones who paid attention.

You now know what holds your walls together, why it fails, how to read it, how to match it, how it is repaired, what it costs, and how to care for it. That is more than most homeowners ever learn about the single material that covers the most square footage of their house. Use it.

Conclusion

If this book has done its job, you will never look at a brick wall the same way again. Where you used to see brick, you will now see the whole system: the units and the glue, the joints doing their three jobs — bonding, cushioning, sealing — and the water story written in the pattern of wear.

The central ideas are simple enough to carry with you. Mortar is not concrete, and it should never be harder than the brick it surrounds. Mortar types run from soft to strong — O, N, S, M — and the right one is the one that matches the wall, not the strongest bag on the shelf. Mortar fails for understandable reasons: age, water, the wrong mix, poor workmanship, and the particular harshness of Texas weather. Repointing — removing the failed mortar and replacing it — is the repair; tuckpointing is the decorative technique that

shares only a confused name. You can read a joint with your eyes and a screwdriver. Color matching is a discipline of samples, panels, curing, and daylight. A proper repointing job follows seven steps, and every one of them matters. Water management — flashing, weep holes, gutters, grading — is what makes the repair last. And none of this is one-and-done: mortar is maintenance, on a schedule, for the life of the house.

Here is the thought I want to leave you with. A brick wall is one of the most durable things a human being can build — there are brick structures standing after centuries. But the brick is not what makes it last. The mortar is. It is the humble, gray, overlooked material in the joints, doing its three quiet jobs year after year, sacrificing itself grain by grain so the brick does not have to. It deserves more respect than it gets, and more attention than most homeowners give it.

Match it right — the right type, the right color, the right craft — and the wall looks original, works as designed, and stands for decades. That is the whole book in one sentence: understand the glue, respect the glue, maintain the glue, and your home's walls will hold together for generations.

Thank you for reading. Now go walk around your house and read your joints. You know how.

About the Author

Travis Nech is the owner of Champion Brick Repair in Dallas–Fort Worth, Texas. With 50 years of hands-on experience in brick and masonry work, he has repointed and color-matched mortar on thousands of Texas homes. He wrote this book so homeowners understand what holds their walls together and what a proper mortar job looks like. Learn more at championbrickrepair.com or call (817) 900-6324.