

The Secret of the Bed



How tile setters and stone masons make a floor stay put — the mortar under the pretty face.

THE TRUE LINE

The Secret of the Bed

A True Line Book
Laid True · Ash's Yard

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A gift from Valley Tile
Northridge, California

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Written for young builders ages 8 to 18.
Free to read. Free to share with a family.

These methods are real. Tools can bite. Work with a grown-up.
Local building codes always beat a picture book.

The True Line · Six Books

Book One The Secret of Square, Level & Plumb

Book Two The Secret of the Fall

Book Three The Secret of the Waste Side

Book Four The Secret of the Scribe

Book Five The Secret of the Bed

Book Six The Secret of the Dry Room

How to Read a True Line Book

These books keep real trade secrets. Younger readers follow Ash and the pictures. Older readers use the green boxes and go outside with an adult. If you are sitting in a showroom, or in the car on the way to look at stone, the watching lists in the back will give your eyes something honest to do.

IF YOU ARE 8 TO 12

- Read the story first. Look hard at the pictures.
- Try the backyard tests with an adult.
- You do not need a job site. A hose, a board, and chalk are enough.
- New words live in the Word Chest at the back.
- If the house is being remodeled, watch one thing at a time.

IF YOU ARE 13 TO 18

- Read the green boxes. Those are working rules.
- Scale the numbers up. Bigger layouts, smaller percent error.
- Check your tools before you trust them.
- Saws, solder, drain chemicals, and live water are grown-up jobs.
- A trade is a promise: do the work true, even when no one is looking.



THE KITCHEN FLOOR

Pretty Is the Last Part

Ash brought the kids to a setter named Flint. Flint had gray on his knees and a notched trowel in his fist. “People stare at the stone,” he said. “The stone is only as honest as the bed it sits on.” A bed is the layer that grabs the tile or the slab and holds it to the floor or the wall. Mud. Thinset. A full coat on the back of a heavy stone. If you are in the showroom looking at slabs, or in the car on the way to pick one, remember this: the beautiful face is not the secret. The secret is whether the ridges collapse, the back is buttered, and the piece does not rock. Romans set stone in lime. Your shower is the same idea with better glue. Gravity is still the boss. Bond is the promise.

The Comb and the Collapse



Flint raked the floor with a notched trowel. The mortar stood up in even ridges, like a field after a plow. Then he set a tile and slid it a little. The ridges folded over and filled the valleys. That collapse is the whole point. Ridges that stay as ridges are air pockets. Air does not hold a floor.

TRY THIS

Spread peanut butter on bread with a fork. Leave ridges. Press a second slice on and slide it. Peel it back. The ridges should have flattened into a full coat.

FOR OLDER BUILDERS

Notch size follows the tile. Little mosaics, small notch. Big stone, big notch, and often a coat on the back of the piece too. Coverage in a dry room should be most of the back. In a wet room, nearly all of it. Hollow corners crack first.

Butter the Back



A large stone or a big tile is like a table with no middle leg if you only comb the floor. Flint turned the piece over and smeared a thin coat on the back — back-buttering — then set it into the ridges. The two coats meet. The void dies. The stone stops sounding hollow when you knock it.

TRY THIS

With an adult, tap two laid tiles with a knuckle. A tight bed sounds dull. A hollow bed rings. Mark the ringers in your mind. That is a map of missed bond.

FOR OLDER BUILDERS

Natural stone and large-format tile almost always want a coat on the back. Beat the piece in with a rubber mallet. Do not drown it. You are seating it, not swimming it. Lift one piece early and read the coverage before you commit the whole floor.

No Proud Edges



Where two tiles meet, one face must not sit higher than the other. That step is called lippage. Shoes catch it. Light paints a stripe on it. A straightedge laid across the joint tells on it at once. Flint checked with his fingertips more than with his eyes. Skin reads a step that pride will ignore.

TRY THIS

Stack two books so one is a card taller. Run a finger across the step. That little catch is lippage. Now shim the low book until the finger does not catch.

FOR OLDER BUILDERS

A little difference can be allowed on a large tile, but a proud edge on a shower floor is a toe-catcher and a dirt trap. Leveling clips are helpers, not a substitute for a flat bed and a true substrate.

Two Kinds of Bed

Old work and new work both have a right bed. Do not mix the stories.

MUD BED

A thick, packed mortar floor, sloped on purpose. The old shower floor. Still the king when the structure is uneven.

THINSET

A thin, sticky coat combed with a notch. Needs a flat, sound floor underneath. Most modern kitchens live here.

THE FLOOR UNDERNEATH

If the floor waves, the tile will wave. Flatten first, or build a mud bed. Do not hope the glue will hide a hill.

OPEN TIME

Mortar skins over in air. If it looks dry and dusty, scrape it up and start again. Dust does not bond.

Stone Has a Face

In a showroom the slab looks calm. On the job it has opinions.

THE WEARING FACE

Stone has a better side. Vein, polish, and pit marks tell you which way it wants to live.

BOOKMATCH

Two sister slabs opened like a book. Beautiful if the seam is planned. A fight if it is not.

MOVEMENT JOINT

Houses move. Long floors need a soft joint so the field can breathe. Grout is not a hinge.

GROUT IS NOT GLUE

Grout fills the shadow between pieces. The bed does the holding. Do not ask grout to save a hollow tile.

Flint's Order of Work

Do these in order or you will chase the floor all afternoon.

1. READ THE FLOOR

Flat? Sound? High corner? Snap the square cross from Book One before any mud.

2. DRY-LAY THE FIELD

Prove the cuts. No skinny slivers at the door. Shift the grid if you must.

3. COMB AND BUTTER

Even ridges. Coat the back of big pieces. Collapse the comb.

4. CHECK, THEN LEAVE IT

Straightedge. Knuckle tap. Then stay off it until it has earned its strength.

Three Real Projects

The Fork Sandwich

Ages 8+

Ridge peanut butter with a fork. Press and slide.
Peel it back. Name the spots that stayed empty.
Those are hollow tiles.

The Knuckle Map

Ages 10+

With permission, tap a finished floor tile by tile.
Dull is good. A ring is a question. Do not pry. Just
listen.

The Showroom Face

Ages 12+

At Valley Tile, or any slab yard, pick a stone.
Decide which face should show. Find the vein
direction. Ask where the seam would hide.

What to Watch When Tile Goes Down

A kitchen or bath remodel is a long play. The pretty face is the last act. Watch the bed.

THE COMB

Even ridges, same direction, no bare islands.

THE LIFT-AND-LOOK

A good setter pulls a tile early and reads the coverage on its back.

THE DULL KNOCK

Hollow rings mean air. Air does not hold a house.

THE FINGERTIP CHECK

A proud edge is felt before it is seen.

THE LEFTOVER SKINNY CUT

A sliver at a doorway means the grid was not shifted.

THE QUIET WAIT

Nobody walking on fresh work. Strength is a kind of patience.

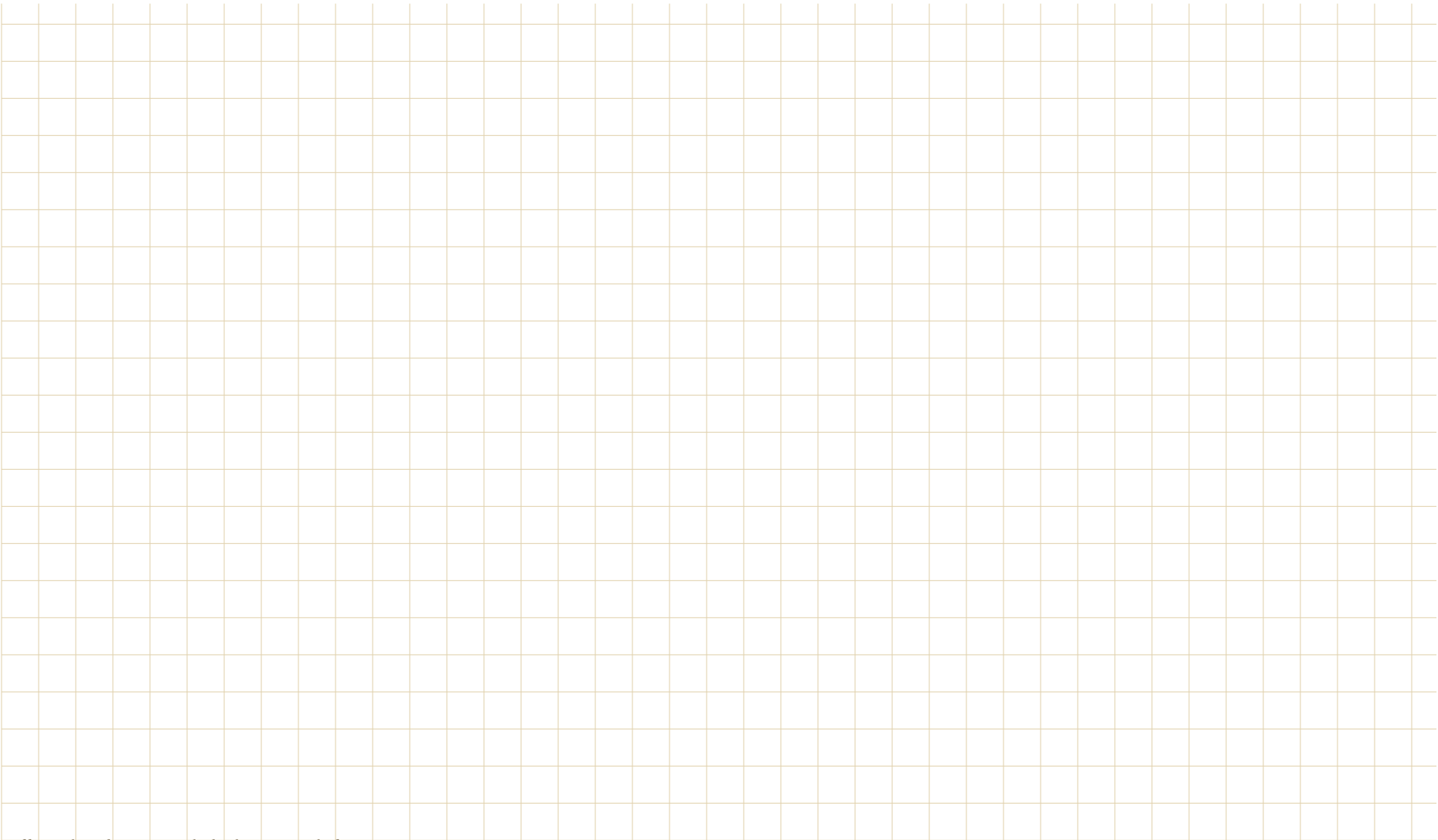
Questions Worth Asking

The bed is the promise. These questions keep it honest.

- 01 Why is a hollow-sounding tile a kind of lie even if the face looks fine?
- 02 What job does collapsing the ridges do that smearing a blob cannot?
- 03 Why butter the back of a big stone instead of hoping the floor coat is enough?
- 04 Grout fills a shadow. The bed holds the house. Where else in life do people confuse decoration with structure?
- 05 Flint says pretty is the last part. What else worth doing has to be true underneath before it is beautiful on top?

Comb the Bed

On the grid, draw a square tile field. In one open square, sketch trowel ridges. In the next, sketch those ridges collapsed under a tile. Mark an X on any corner you would lift and check.



Collapse the ridges. Butter the back. Pretty is the last part.

The Word Chest

Back-butter

A thin coat of mortar on the back of a tile or stone before it is set.

Bed

The layer that bonds the piece to the floor or wall.

Bond / coverage

How much of the back is actually grabbed by mortar.

Lippage

One tile sitting proud of its neighbor.

Mud bed

A thick, packed mortar floor, often sloped to a drain.

Notch / trowel

The toothed tool that combs mortar into ridges.

Open time

How long mortar stays wet enough to grab.

Thinset

A thin-setting mortar used over a flat, sound floor.

Movement joint

A soft joint that lets a long floor move without cracking.

Grout

The filler in the joint. Not the glue.

Large-format

A big tile that needs extra care in the bed.

Bookmatch

Sister slabs opened like a book so the veins mirror.

The Builder's Promise

Craft is courage plus care. A young builder works with a grown-up until the habits are as true as the bed.

- 01** Ask an adult before mixing mortar, cutting tile or stone, or lifting anything heavier than a backpack.
- 02** Wear closed shoes. Use eye protection for cutting. Stone dust is a grown-up problem with the right mask.
- 03** Do not walk on fresh tile. Do not pry a finished floor to “check.”
- 04** Wet saws and grinders are grown-up tools. A cardboard dry-lay is enough for practice.
- 05** Mortar can burn skin. Wash off splash. Do not mix bags for fun.
- 06** Leave the room tidier than you found it. That is also a trade secret.

ASH'S LAST WORD

A floor is a promise you make with your knees. Collapse the ridges. Butter the back. Then leave it alone until it has earned its strength.



THE LINE IS STILL THERE

Pretty is the last part.

THE TRUE LINE · A GIFT FROM VALLEY TILE · AGES 8 TO 18 · PRACTICE WITH A GROWN-UP · CHECK TWICE