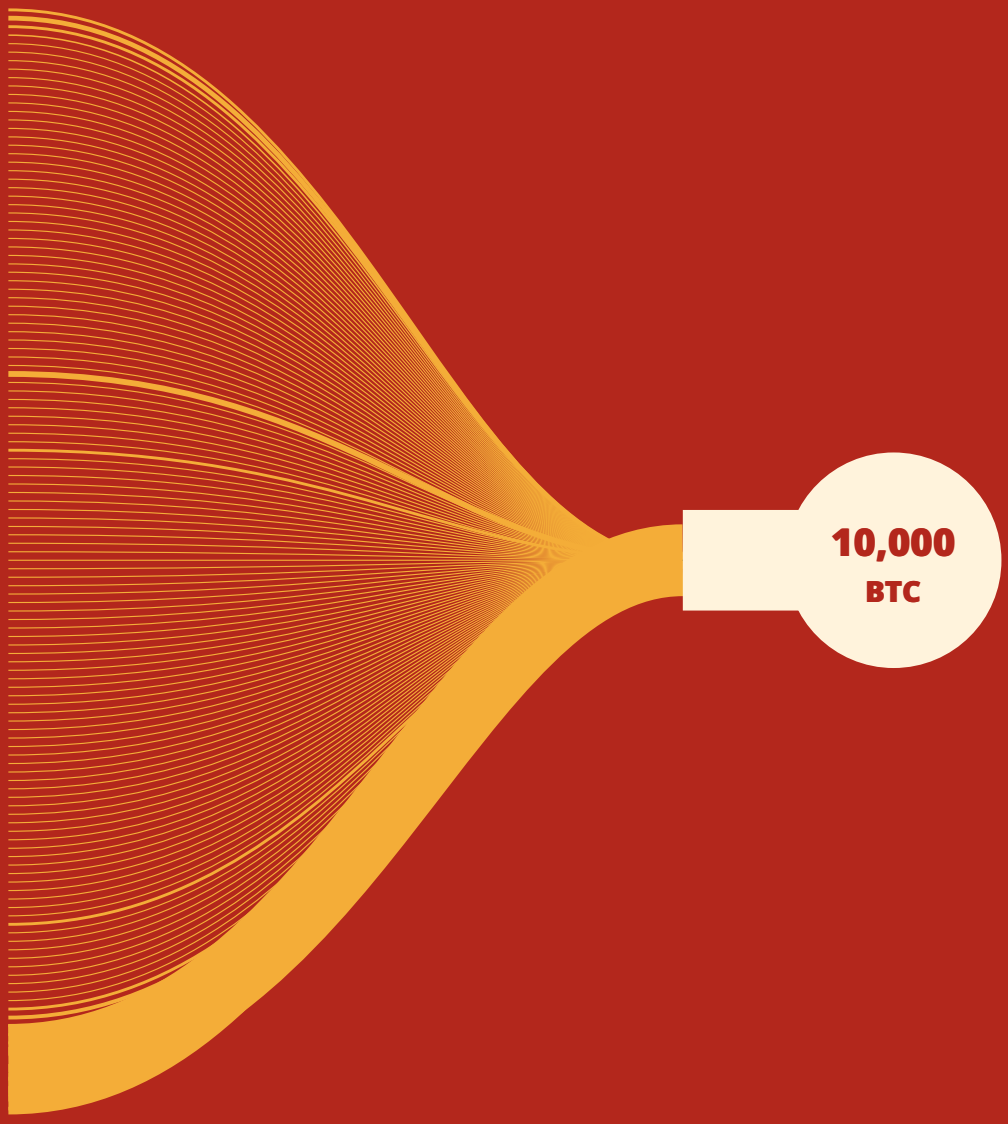
Satsumap chain analysis



Two pizzas, 10,000 bitcoin

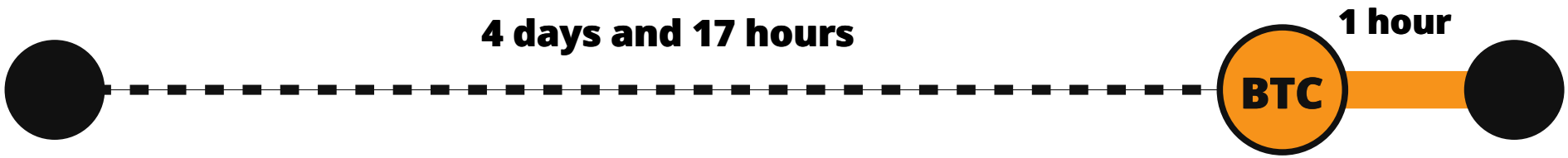
May 22, 2010 · 131 coins in one payment

131 inputs · 0.01 to 3,754 BTC

THE STORY

01

An offer, a payment and a report



May 18, 2010
00:35 UTC · the offer, on the forum

May 22, 2010
18:16 UTC · the payment, on the chain

19:17
the report

The offer 1

Laszlo Hanyecz writes on the Bitcoin Talk forum that he will pay **10,000 bitcoin** for two pizzas.

The payment 2

In block 57,043, a transaction gathers **131 coins** and pays 10,000 BTC in a single output.

The report 3

Laszlo posts on the forum that he traded 10,000 bitcoin for pizza, and thanks **jercos**.

The offer and the report are on the forum, and the payment is on the chain. With this payment, Satsumap's analysis gets it wrong (sheets 05 and 12).

Six words to read the chain

Input
The coin a transaction spends. It is spent **whole**, like a banknote.

Output
A new coin the transaction creates, with its amount and its lock: who can spend it.

Address
A short way of writing a lock, like 1XPTg…. In 2010 many coins had no address, and their lock was the full public key.

Coinbase
The first transaction in each block. It **creates new bitcoin** for whoever mined it. In 2010, 50 BTC.

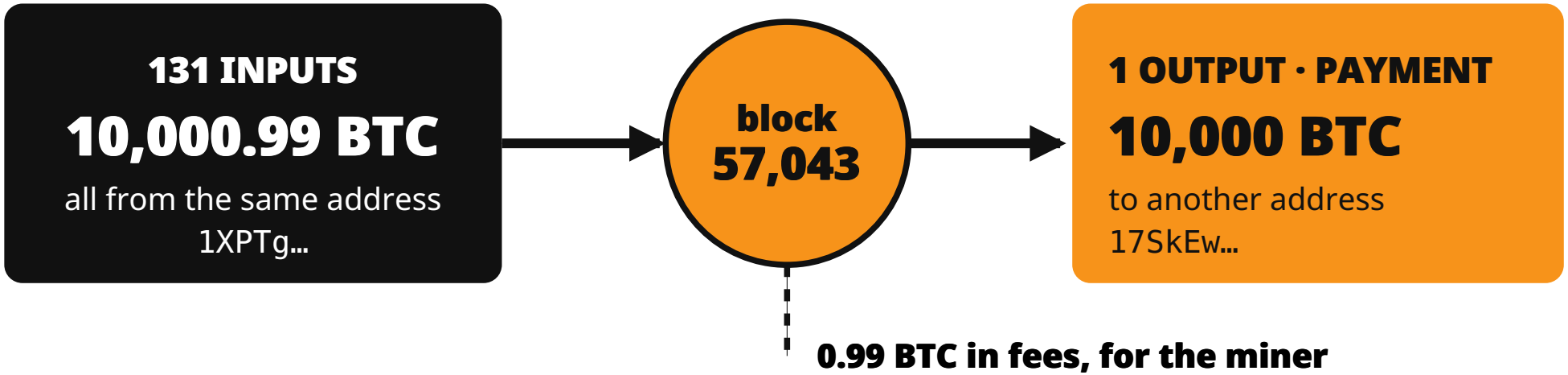
Change
What is left over from the banknote, returned to the payer in a separate output. **This payment has none.**

Consolidate
To gather many of your own coins into one. It has the same shape as a payment with no change.

On the chain, consolidating and paying with no change look the same. This payment is an example.

MAY 22, 2010, 18:16 UTC · BLOCK 57,043

131 coins, a single payment



131
inputs, each from a different transaction

1
address they all come from

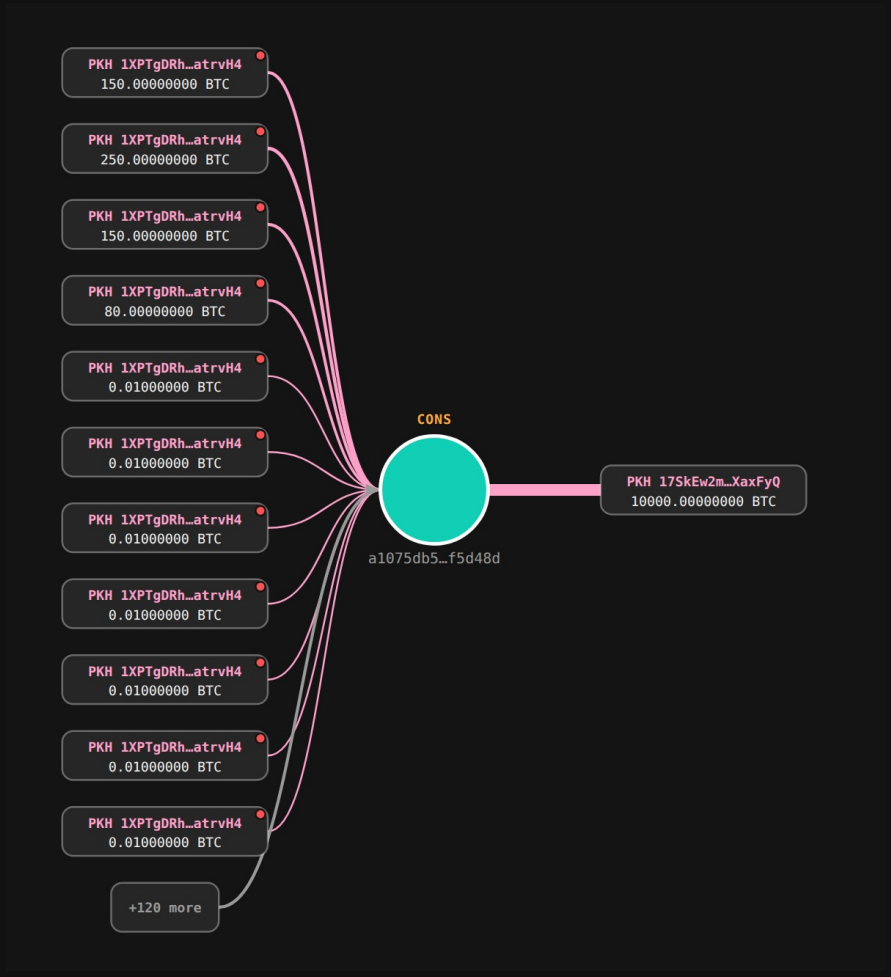
0
change outputs. What is left over goes as the fee

2
transactions in the block: the coinbase and this one

TXID `a1075db55d416d3ca199f55b6084e2115b9345e16c5cf302fc80e9d5fbf5d48d`. Why 0.99 BTC was paid in fees, the chain does not say.

HOW IT LOOKS

The payment in Satsumap



On the left, the coins coming in
They all say 1XPTgDRh…atrvH4: the same address. Eleven are shown; the other 120 wait in “+120 more”.

In the middle, the transaction
The circle is the payment. Above it, the CONS tag, for consolidation.

On the right, the only output
10,000 BTC to 17SkEw…. No output goes back to the address that paid.

To explore it: satsumap.citadellhost.com, search for the TXID a1075db5…f5d48d.

Satsumap gets it wrong

What the app says

"Consolidation", with "high confidence". And the "?" adds that it is "a fact read straight from the data, not a deduction".

What is a fact

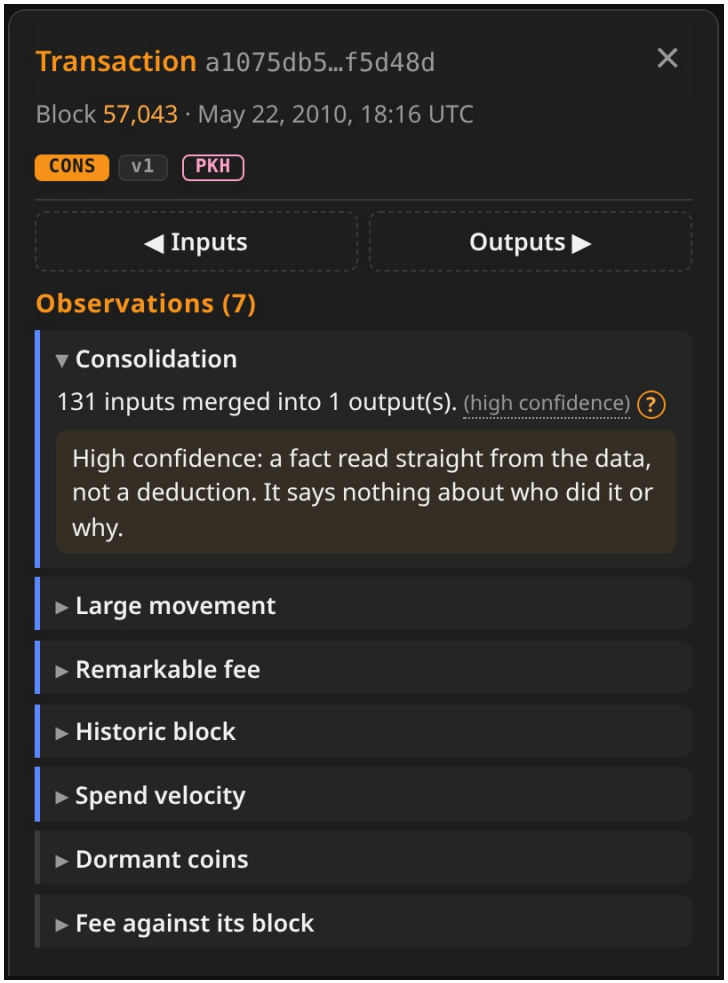
That it has 131 inputs and one output. It is read straight from the chain.

What is a deduction

That someone is gathering their own coins and the 10,000 still belong to whoever paid. The app had a fact against it, because the output goes to an address that is not among the inputs.

What happened

It was a payment to someone else. The forum and the interview with jercos say so.



Until Oct 20, 2026, the Inspector's "Spot a consolidation" technique was practiced with this very payment. What happens if you believe the label, on sheet 12.

Why this transaction?

WHAT THE CHAIN SHOWS

The amount
Exactly 10,000 BTC, in a single output.

The day and time
May 22, 2010, 18:16 UTC, one hour before the report on the forum.

No names
Only the address that pays and the one that gets paid.

WHAT IS KNOWN FROM OUTSIDE

“I just want to report that I successfully traded 10,000 bitcoins for pizza. [...] Thanks jercos!”

Laszlo, Bitcoin Talk, May 22, 2010.

Laszlo **does not give the TXID**. A 2015 interview with jercos gives it, and also says which address each of them used. That part is written by the interviewer, not by jercos. The Bitcoin Wiki gives the same TXID.

The chain is consistent with that attribution and does not prove it. All the sources use this transaction, and none of them proposes another.

GOING BACK

Where the 131 coins come from

GROUP	COINS	TOTAL	ARRIVED AT 1XPTg…
Large, from 80 to 3,753.88 BTC	20	9,999.88 BTC	from Apr 15 to May 22, 2010
Small, 0.01 BTC each	111	1.11 BTC	on Apr 18, 2010, in under two hours

None is a coinbase

1

All 131 reached that address through a transfer. None was created by mining right there. That is why we look **one hop further back**.

One more hop

2

The large ones lead to coinbases (next sheet). The small ones lead to 111 different addresses, and that is where we stop.

The rule of this case is to go one more hop when a coin was transferred. If there is still no coinbase there, we stop and say so.

6,100 BTC from 122 coinbases



Coins created by mining

16 of the 20 large ones come from transfers that only gather coinbases: 5,750 BTC. Three others mix coinbases with transfers.

122 different keys

Each coinbase pays the key chosen by whoever mines. Whoever made each transfer held the keys to its coinbases.

What does not reach a coinbase

3,899.88 BTC come from transfers. We stop there.

INFERENCE

On Aug 4, 2010 Laszlo wrote that he could no longer keep paying for pizzas "since I can't generate thousands of coins a day anymore". **It is consistent** with him having mined those coinbases. The chain shows keys that collected rewards and transfers that gathered them, not a person.

The numbers add up: 6,100 from coinbases + 3,899.88 from transfers + 1.11 from the small coins = 10,000.99 BTC, what goes into the payment.

GOING BACK · THE SMALL ONES

09

111 coins of 0.01: not known

Apr 18
2010, the day they all arrived, between 17:57 and 19:46 UTC

111
transfers, each from a different address

0.01 BTC
to 1XPTg... in each transfer, and the rest to another address

2
transfers spend the other output of an earlier transfer

What the chain shows

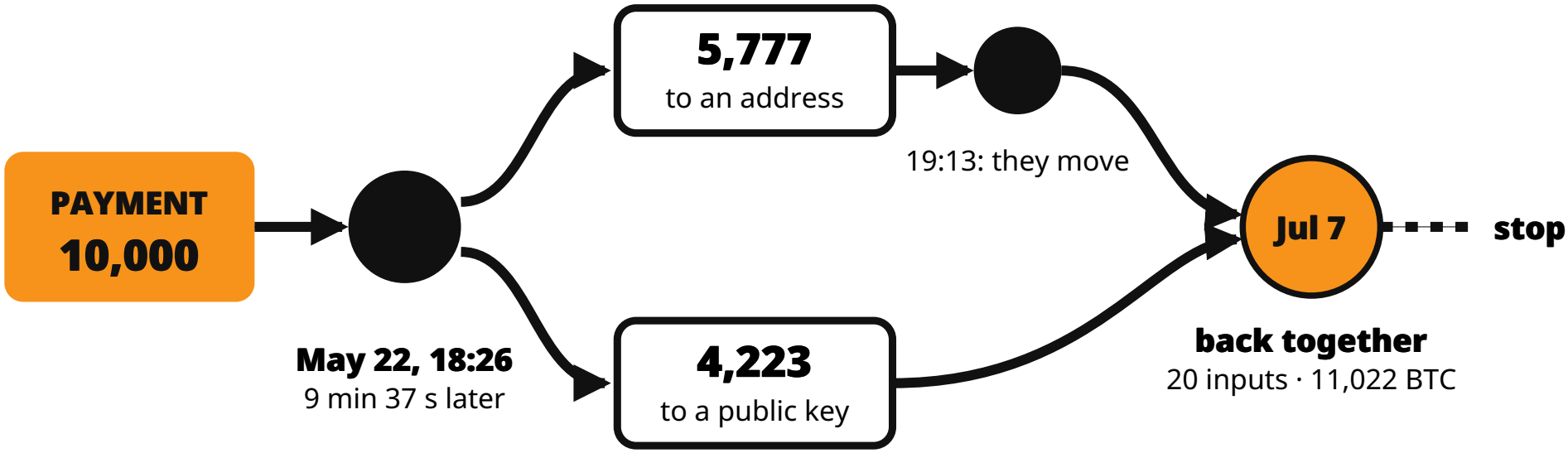
In two cases, one transfer uses what was left of another. That each pair belongs to one wallet is an inference. For the rest, it does not say whether it was one person or many.

What it does not show

Who sent them and why. This case does not speculate about it. A month later, those 111 coins went into the pizza payment.

Added up, the 111 small coins are 1.11 BTC of the 10,000.99 that go into the payment.

After 9 minutes, it splits in two



9 min 37 s
after the payment, the first spend: in the next block

5,777 + 4,223
the two parts it splits into

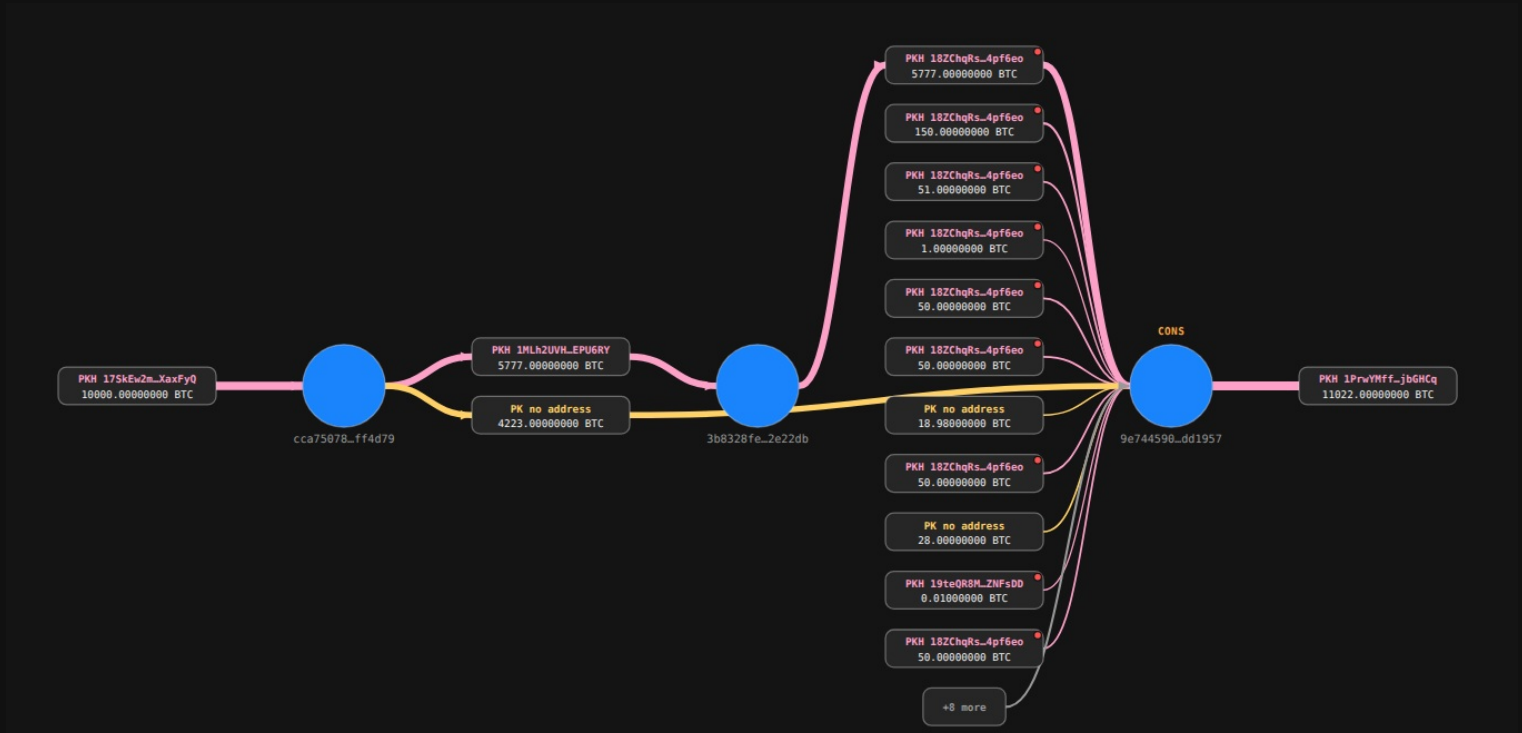
45 days
later, on Jul 7, 2010, the two parts are spent together again

0
in fees at each of these steps

After coming back together, the 11,022 BTC split into 5,500 and 5,522. We stop there, because after the one who got paid, nobody has a name.

JUL 7, 2010 · BLOCK 64,683

The two parts, the same wallet



What it shows

To spend a coin you need its key. If two coins go into the same transaction, whoever built it held both, unless several people built it together, as in a CoinJoin.

What it does not show

Whose wallet that is. jercos said in 2015 that he spent the 10,000 “fairly quickly”. The chain does not say whether they already belonged to someone else.

In yellow, the coins locked to a bare public key, with no address: the 4,223 and two of the other 18. They all go in with the 5,777 into 9e744590…dd1957.

IF YOU BELIEVE THE LABEL

How a chain analysis fails

STEP	THE RULE	WHAT IT CONCLUDES	IS IT TRUE?
1	Common input	The 131 inputs have one owner, 1XPTg…	**Yes**
2	“Consolidation”	The address that got paid, 17SkEw…, is theirs too	**No**, it was a payment to jercos
3	Follow the money	The 5,777 and the 4,223 the payment split into are still theirs	**No**, because of step 2
4	Common input	On Jul 7, 2010, the 20 coins that go in together are theirs too: 11,022 BTC	**No**, because of step 2
5	“Consolidation”	The app tags that one CONS too, so the address it pays would be theirs as well	**No**, because of step 2

THE RESULT

The one who paid and the one who got paid end up as the same owner. jercos’s coins are attributed to Laszlo, along with everything jercos did with them afterwards. They were two different people.

THE RULE THAT DOES HOLD

“Some linking is still unavoidable with multi-input transactions, which necessarily reveal that their inputs were owned by the same owner.” Satoshi Nakamoto, Bitcoin whitepaper, 2008. It is about the inputs, and the output is left out.

All five steps use reasonable rules, and no rule of the chain corrects the mistake. A fact from outside corrects it, the report on the forum.

IN DOLLARS OF THE TIME

10,000 bitcoin, 41 dollars

US$ 41
what the 10,000 BTC were worth on May 18, 2010, according to a forum user. About 0.4 cents each

US$ 25
what the two pizzas cost, according to Laszlo, “maybe 30 if you give the guy a nice tip”

US$ 400
what they were worth when jercos spent them, as he said in 2015

WHAT DOES NOT MATCH

jercos remembers ordering from **Domino’s**, but the photos show **Papa John’s**. It cannot be known, and it changes nothing of what the chain says.

TO THIS DAY

The address that got paid has received **50 small transfers** since 2015, 38 of them in 2026, and none has been spent. As with the genesis, they are usually read as tributes. The chain only shows the transfers.

There are no prices on the chain. All three come from the forum (May and June 2010) and from the interview with jercos (2015).

READ WITH CARE

What the chain says, and doesn't

CLAIM	WHERE IT COMES FROM
A transaction gathers 131 coins from one address and pays 10,000 BTC to another	**Chain**
That transaction is the pizza payment	Outside: the 2015 interview and the Wiki. The chain is consistent
Laszlo Hanyecz paid and jercos got paid	Outside: Laszlo on the forum and the interview
6,100 BTC of the payment come from 122 coinbases, two hops back	**Chain**
Laszlo mined those coinbases	**Inference**, consistent with what he said
Who sent the 111 coins of 0.01 and why	**Not known**
The two parts of the 10,000 are spent together on Jul 7, 2010	**Chain**
Whose wallet that was	**Not known**
It is a consolidation, as Satsumap says	**False**: it was a payment to someone else
The 10,000 BTC were worth 41 dollars	Outside: the forum, May 2010

CHECK IT YOURSELF

The data, in plain sight

Block 57,043 · the pizza payment
`a1075db55d416d3ca199f55b6084e2115b9345e16c5cf302fc80e9d5fbf5d48d` mempool.space

Block 56,343 (May 18, 2010) · 18 coinbases gathered into a 900 BTC coin
`07c8b28197c8c84bcb77104e299ee7ae75f3543f74d8d37217de54b6da85c72c` mempool.space

Block 57,044 · the first spend: 5,777 and 4,223
`cca7507897abc89628f450e8b1e0c6fca4ec3f7b34cccf55f3f531c659ff4d79` mempool.space

Block 57,053 · the 5,777 move
`3b8328fe7e53a8162cf023738a53c85a3cbf21efe517ab878e8cfecc3a2e22db` mempool.space

Block 64,683 · the two parts, together again (Jul 7, 2010)
`9e744590d196b63d02a1dd7ef596fd6082286f84295d66da411a9ffebfdd1957` mempool.space

Address that pays · the 131 inputs
`1XPTgDRhN8RFnzniWCddobD9iKZatrvH4` mempool.space

Address that gets paid · the 10,000 BTC
`17SkEw2md5avVNyYgj6RiXuQKNwkXaxFyQ` mempool.space

Each TXID and address opens **Satsumap** with one click, and next to it is the link to **mempool.space**. You can also copy them and paste them into either search box.

Sources outside the chain: Laszlo Hanyecz, “Pizza for bitcoins?”, Bitcoin Talk (2010) · interview with jercos, Bitcoin Who’s Who (2015) · Bitcoin Wiki.