Today, when a user submits a proof for their private tx, they include the tree roots they used for the L1-to-L2, private data, and contract trees. However, there’s nothing that requires that these tree roots are contemporary with each other: the proof could use a very recent private data tree with a very old contract tree, or the other way around.

Can this be exploited in any way? I understand that no, because these trees are only used for proving that something is present (and not the other way around), so using an older root will at most prevent a proof from using a certain value or contract. Am I missing anything?