

BREAKING THINGS

THE BASIC PREMISE:

These rules are based on the armour damage rules found in TfoB. It was bought up when I needed some numbers to determine exactly how long it would take the party to chop through a door and stop a murder. I found at this rather critical time that there were no rules to cover this particular issue. And so here they are.

FIRST

I've based all this on the damage required to make a wooden shield useless. This has a threshold of 15 and an AV of 4. When the shield is hit by a cutting/slashing weapon it takes 2 from the threshold, 1 for bludgeoning attacks and 0 for puncturing attacks. All these are modified by +1 if the attack penetrates through and hurts the person underneath. This then implies that 5 successful blows to a shield with a cutting/slashing weapon will destroy it, at least beyond the point of it providing protection. Assuming a shield is 2 foot in diameter and ½ an inch thick, therefore has a surface area of 9.87 (p x radius, squared) which we can round off to 10 square feet. We take this as our basic unit of measurement in destroying wooden objects.

OBJECTS

A typical door is 3' by 6', which means it has a surface area of 18 square feet. This is almost 2 off our basic units, which would give a typical door AV4, 30 Threshold. So to completely destroy the door you would need to do 30 points of damage, which on average means it would take 10 blows with a cutting/slashing weapon, like an axe, to do so. But on saying that after 5 blows you have destroyed half the door, and this could be enough to get through or manoeuvre around, and stops it being an obstacle.

Now I'm assuming the character is not rolling to hit and is doing the basic damage with their weapon of choice, as long as it does more than the AV it damages the object and counts as having hurt the person underneath, at least for the purposes of these rules.

Lets have a 2nd example, we have a woodcutter with his big woodcutting axe, who wishes to cut down an annoying tree which is blocking his wife's view of the garden when she's doing the dishes. He heads out with a purpose. The tree is 2' across. Our basic unit of measurement is only ½ an inch, so the tree should be 24 times as tough, 360 Threshold. The woodcutter, with his axe easily defeats the trees AV of 4 and so each blow with his axe will do 3 points of damage to the Threshold. This means it will take him about 120 blows to chop through the tree. Say 1 blow a second this will take 2 minutes. Assume he has to rest every 2x Endurance rounds, for 1 minute, (Endurance 4), he needs to rest 15 times, which takes the job up to 17 minutes in total.

But I hear you cry, he's a woodcutter and won't need to cut through the entire tree, well that's correct, he actually probably only needs to go through half the tree which means he only needs 60 blows with 8 rest periods taking the entire job down to 9 minutes. We have to assume that he takes some measurements and plans where the tree falls and all, which takes another 10 minutes, which means he can cut down 3 trees an hour, and 24 trees a day. He probably gets 1 copper a day. This is the only way a peasant could earn the 1 gold per year as stated in the rulebook. Effectively he gets 1 bit for every 6 trees he fells. Whereas if he were a Low Freeman he would get 2 bits per tree he felled. I'm basing these numbers on a 298-working year, 6-day weeks with 14 days service in a feudal lords army/militia. As you can see I've thought about this a lot. You can use it to represent vehicles, carts and boats as well as walls, well palisade walls at least. And

that leads me on to the next section.

OTHER MATERIALS

What about breaking things made of metal, or reinforced with metal and also those things made of stone. To represent reinforced wood, use the banded shield numbers instead of the pure wood numbers, so a reinforced door would have AV6 and 40 Threshold.

Metal doors or objects, use the metal shields numbers, so a door made of metal would have AV8 and 80 Threshold. But now you need to know that Cutting/Slashing weapons are less effective only doing 1 point of damage if they penetrate, the same with penetrating weapons, but bludgeoning weapons do 1 damage and 2 if they penetrate. This means if you were using a hammer to batter down said metal door then you would require 40 blows, which is going to take some time.

Ok now stone, stone isn't as giving as either wood or metal, which can deform to absorb some of the impact. So a stone block ½ an inch thick would probably break and fall apart from one hit with a good hammer. So to simulate the above sorts of numbers we need to thicken up the basic unit, (1/2"), to 1". This means stone basic units are now 2' square and 1" thick, and have AV8 and 30 Threshold. Cutting/slashing/piercing weapons will only do 1 damage if they penetrate, whilst bludgeoning weapons will do 1 damage and 2 if they penetrate. Now you can simulate stone walls and secret doors made of stone.

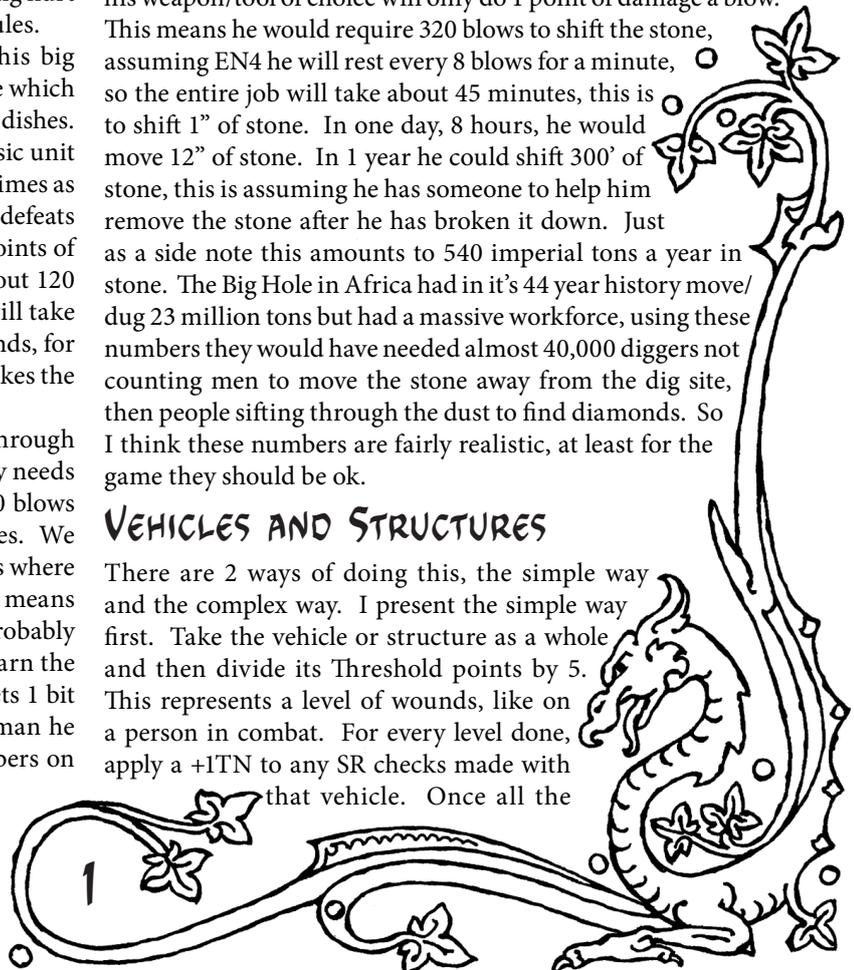
Here's another example:- A miner has found a vein of silver in his local hills, he's made and received his claim to mine it, and sets to work. He wants to make a tunnel wide enough for him to work in and decides to make it 2 door widths and 1 in height so 4 basic units of stone need to be cleared. This amounts to an AV8 320 Threshold of stone. Taking the Labourer as an example for a miner we find he has ST 4, the average Pick would have DR ST+2, (based on a warhammer), so he doesn't penetrate the stone, which means his weapon/tool of choice will only do 1 point of damage a blow.

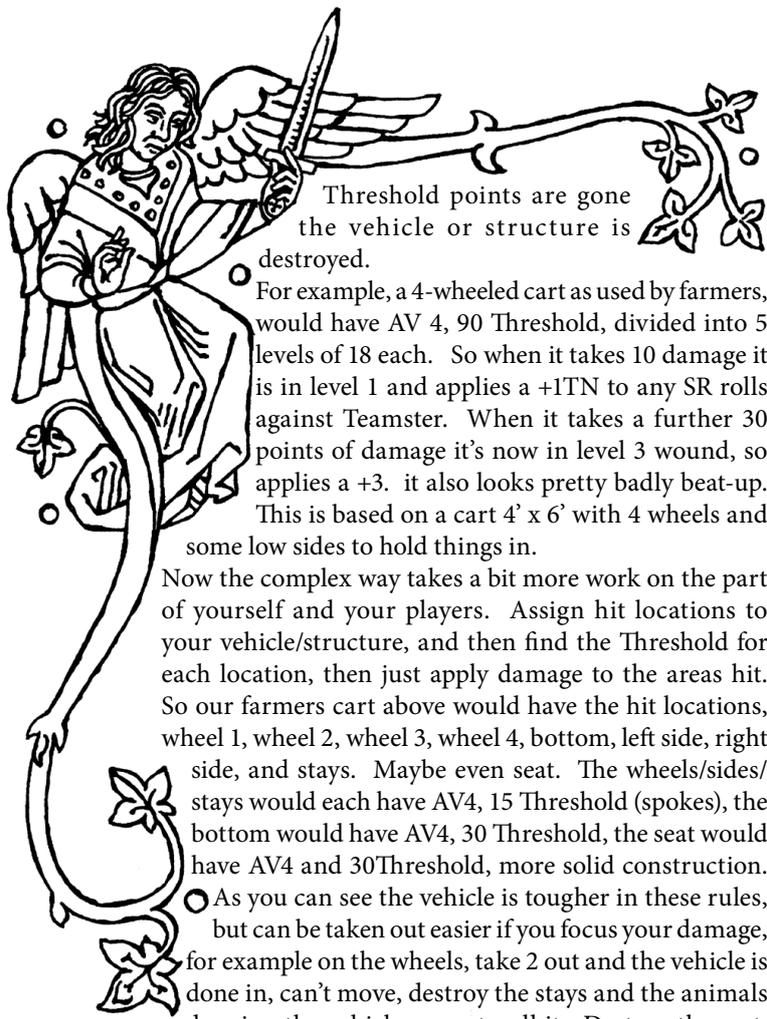
This means he would require 320 blows to shift the stone, assuming EN4 he will rest every 8 blows for a minute, so the entire job will take about 45 minutes, this is to shift 1" of stone. In one day, 8 hours, he would move 12" of stone. In 1 year he could shift 300' of stone, this is assuming he has someone to help him remove the stone after he has broken it down. Just as a side note this amounts to 540 imperial tons a year in stone. The Big Hole in Africa had in it's 44 year history move/dug 23 million tons but had a massive workforce, using these numbers they would have needed almost 40,000 diggers not counting men to move the stone away from the dig site, then people sifting through the dust to find diamonds. So I think these numbers are fairly realistic, at least for the game they should be ok.

VEHICLES AND STRUCTURES

There are 2 ways of doing this, the simple way and the complex way. I present the simple way first. Take the vehicle or structure as a whole and then divide its Threshold points by 5.

This represents a level of wounds, like on a person in combat. For every level done, apply a +1TN to any SR checks made with that vehicle. Once all the





Threshold points are gone the vehicle or structure is destroyed.

For example, a 4-wheeled cart as used by farmers, would have AV 4, 90 Threshold, divided into 5 levels of 18 each. So when it takes 10 damage it is in level 1 and applies a +1TN to any SR rolls against Teamster. When it takes a further 30 points of damage it's now in level 3 wound, so applies a +3. it also looks pretty badly beat-up.

This is based on a cart 4' x 6' with 4 wheels and some low sides to hold things in.

Now the complex way takes a bit more work on the part of yourself and your players. Assign hit locations to your vehicle/structure, and then find the Threshold for each location, then just apply damage to the areas hit.

So our farmers cart above would have the hit locations, wheel 1, wheel 2, wheel 3, wheel 4, bottom, left side, right side, and stays. Maybe even seat. The wheels/sides/stays would each have AV4, 15 Threshold (spokes), the bottom would have AV4, 30 Threshold, the seat would have AV4 and 30Threshold, more solid construction.

As you can see the vehicle is tougher in these rules, but can be taken out easier if you focus your damage, for example on the wheels, take 2 out and the vehicle is done in, can't move, destroy the stays and the animals drawing the vehicle cannot pull it. Destroy the seat, well it just gets uncomfortable for the driver, but hey. Obviously this is a lot more work on everyone's part but more realistic in the end, the tables below will list some common items and things with the simple rules, but you should be able to put together the complex rules from them easily enough.

OBJECTS

OBJECT	AV	THRESHOLD	UNITS	DESCRIPTION
Chair, simple	4	15	1	Simple/stool or chair
Chair, ornate	4	30	2	Armchair, or upholstered chair
Chest, simple	4	45	3	3'x2'x2', wooden chest,
Chest, reinforced	6	60	3	3'x2'x2', wooden chest, with iron bands at joints and hinges
Chest, steel	8	120	3	3'x2'x2', metal coffer,
Chest, stone	8	120	3	3'x2'x2', stone coffer,
Coffin, wood	4	105	7	6'x2'x3' pine box
Coffin, stone	8	280	7	6'x2'x3', stone sarcophagus
Coffin lid, wooden	4	30	2	6'x3', weighs 45lbs, 60lbs in mahogany.
Coffin lid, stone	8	80	2	6'x3', weighs 248lbs
Door, simple	4	30	2	½" thick, panelled door
Door, reinforced	6	40	2	As above but reinforced with iron bands/hinges
Door, steel	8	80	2	As above but made in metal
Door, stone	8	60	2	As above but made in stone
Door, thick, simple	4	60	4	1 inch thick, and see above
Door, thick, reinforced	6	80	4	1 inch thick, and see above
Door, thick, steel	8	160	4	1 inch thick, and see above
Door, thick, stone	8	120	4	1 inch thick, and see above
House, peasant	6	2,250	150	30'x30'x10', with 6" wattle & Daub walls
House, town	8	6,000	150	30'x30'x10', with 6" brick walls
Mast	4	360	24	1' diameter, you don't need to destroy just cut in half
Table	4	60	4	4' x6' and 1" thick,
Wall, castle	8	19,200	480	10'x10'x1, this is a section of wall
Wall, palisade	4	270	18	6'x5'x6", this is a section of 6' high palisade.
Wall, house	8	400	10	10'x10'x6", a typical town house wall, using brick/stone
Wall, house, peasant	6	150	10	10'x10'x6", a typical town house wall, using wattle & daub
Wheel, spoked	4	15	1	5 or 6 spokes onto a wood circle 1" square
Wheel, solid	4	30	2	1" thick solid wood

VEHICLES

VEHICLE	AV	THRESHOLD	UNITS	DESCRIPTION
Ballista, light	6	180	9	A mounted arbalest, with 566lbs of pull, weight = 116lbs
Ballista, heavy	6	540	27	A mounted arbalest, with 1265lbs of pull, weight = 338lbs
Barge	4	1,350	90	30'x5'x5', single masted, flat bottomed boat
Briganteen	6	36,520	1,826	110'x35'x24', classic sailing ship, multi-masted and sailed
Carriage	6	420	21	7'x5'x5', 4 wheels can carry 4-6 inside, requires 2 horses
Cart, 2 wheeled	4	75	5	4'x4'x1', 2 solid wheels, no top or back, seating for 2
Cart, 4 wheeled	4	90	6	6'x4'x1', 4 solid wheels, no top or back, seating for 2
Caravel	6	29,400	1,470	105'x30'x20', sailing ship with 3 evenly spaced masts
Carrack	6	13,240	662	65'x21x15', sailing ship with 1 main mast and 2 supporting
Catapult	6	520	26	Torsion siege engine, with 1132lbs of pull, weight = 320lbs
Corsair	6	14,000	700	70'x20'x15', single-masted, gaff rigged, loved by pirates
Drakkar	4	10,500	700	70'x20'x15', typical Viking/savaxen warship
Fishing Boat	4	1,050	70	25'x6'x4', single masted coastal vessel
Frigate	6	48,160	2408	145'x35'x24', classic Spanish armada sailing/war ship
Jungle Boat	4	1,260	84	21'x8'x6', single masted coastal ship, rear paddle for steering



VEHICLE	AV	THRESHOLD	UNITS	DESCRIPTION
Junk	4	4,410	294	35'x18'x12', single masted, with ribbed sails
Lighter	6	9,840	492	60'x17'x12', single masted, multi-sailed vessel
Log Canoe	4	120	8	6'x2'x2', seats 2, both may need to paddle
Longboat	4	4,740	316	45'x15'x10', the smaller cousin to the Drakkar
Merchantman	6	5,880	294	35'x18'x12', single masted, with twin paddles to either side at rear
Merchantil	6	5,600	280	40'x15'x10', as above but with a high rear castle added
Mini-Merchant	4	2,310	154	32'x10'x7', twin masted coastal vessel, with outriggers
Reed boat	4	260	26	10'x5'x4', made from reeds, so not as sturdy as wood,
River Boat	6	1,200	60	20'x5'x5', single masted, flat bottomed boat
Rowing Boat	4	180	12	6'x4'x3', seats 3-4 people, requires 1 oarsman
Schooner	6	17,000	850	85'x22'x14', twin masted, multi-sailed ship
Sprenal	6	80	4	Spring based, siege engine, shooting multiple arrows or stones
Trebuchet	6	10,240	512	Counterweight siege engine, pull = 2263lbs, weight = 3 tons
Twin Canoe	4	1,020	68	20'x7'x5', single masted catamaran
War Galley	6	42,200	2,110	185'x25'x16', twin masted, oared warship,

As you can see from the list above I've included some siege engines. That's because one of my games started to revolve around the mass combat system, and things like laying siege to places, they are trying to help Farrenshire beat off the Gelure forces currently besieging the last city of Mouren. One of them asked a siege engineer how long it would take for the enemy forces to breach the walls of the city, and because of the lack of breaking things rules I couldn't say, I think I made something up on the spot, and then started these rules to cover the eventuality should it occur again, which it did several times. Listed below are the stats for the siege engines, based on real world numbers converted using my breaking things rules as above.

SIEGE ENGINES

ENGINE	DR	PREP TIME	CREW	PROJECTILE	RANGE
Ballista, light	14	3	2	11lbs, 2" bolt	400, 65/second
Ballista, heavy	19	14	2	34lbs, 4" bolt	400, 65/second
Catapult	17	15	3	55lbs, 7" stone	300, 50/second
Sprenal	**	5	4	Up to 12 arrows/stones	Use longbow ranges
Trebuchet	33	10-15 mins	4-8	300lbs, 10" stone	400, 50/second

Both the catapult and the trebuchet should apply all the damage to breaking things. For example a trebuchet stone hits a wall, after taking the AV8 off, it has 25 damage left which should now be applied to that section of wall in totality. This means if the fire was concentrated on the same section of castle wall it would take 24 days to breach it. I allow artilleryists to reduce this time by dividing it by the success they achieve on an artillery SR, this represents keeping the weapon on target and also knowing where the weak points are.

You can see that I've put the travel times on as well, this is to show that to hit a single person with a siege weapon was hard work, after all it takes a trebuchet stone 8 seconds to reach it's target at it's furthest range. But when troops are tightly packed and can't move freely these weapons can be deadly, a siege weapon should ignore armour, and if it causes a level 5 wound should continue on to its next target and do damage to that as well. So a trebuchet stone should do a level 5 wound to 3 men with TO5 before running out of steam. There are stories of ballista bolts piercing men to trees and even piercing multiple soldiers.

